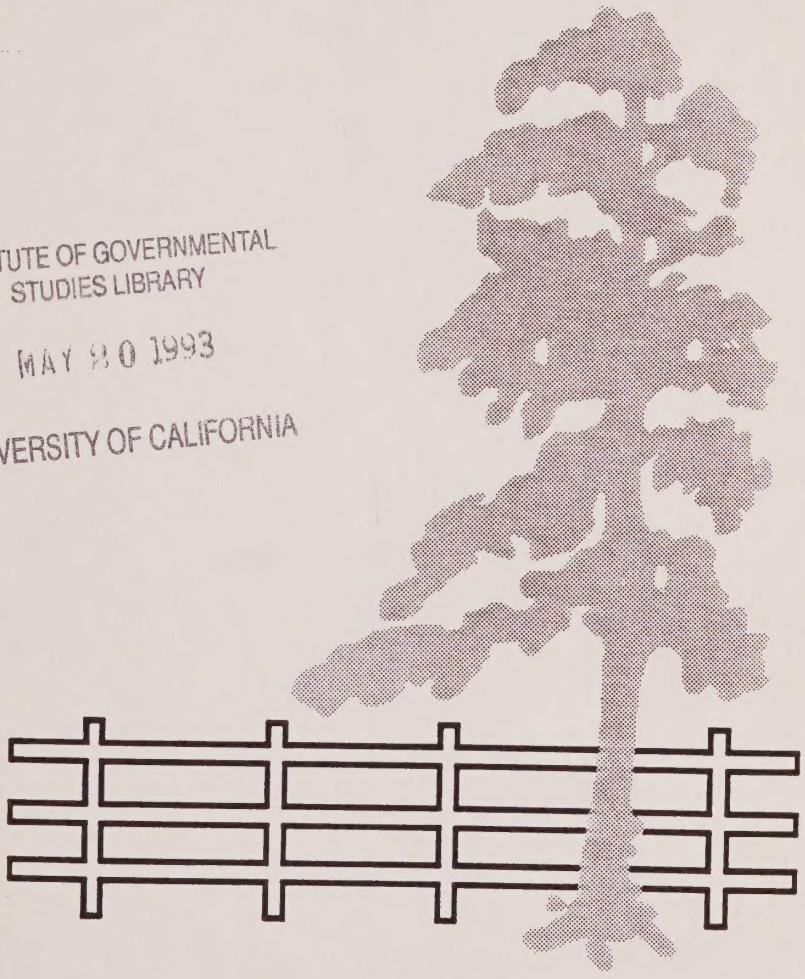
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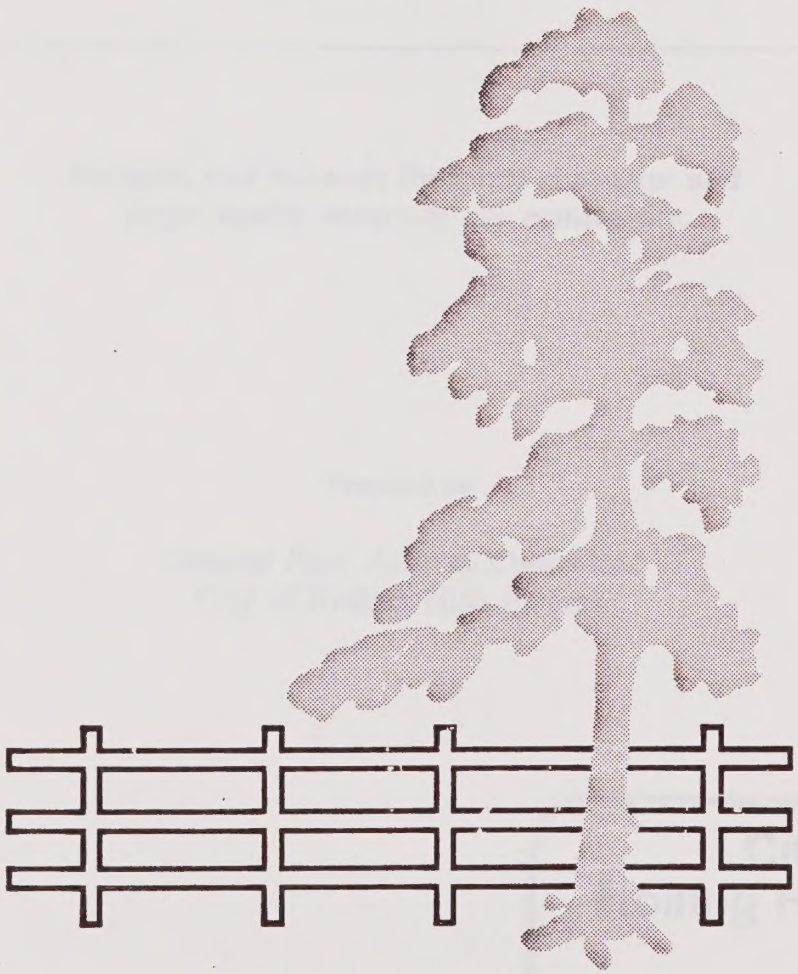
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GENERAL PLAN

City of Rolling Hills Estates



GENERAL PLAN

1992

City of
Rolling Hills Estates

GENERAL PLAN

1972

CITY OF ROLLING HILLS ESTATES
GENERAL PLAN 2020

Preserve and enhance the rural character and single family nature of our community.

Prepared by:

General Plan Advisory Committee
City of Rolling Hills Estates



City Council

Peter M. Weber, Mayor
Kenneth L. Servis, Mayor Pro Tem
Jacki McGuire, Councilwoman
Barbara Rauch, Councilwoman
Robert W. Beck, Councilman

Planning Commission

Richard Somers, Chairman
Susan Seamans, Vice Chairwoman
Frank Rutkosky
Robert Huskins
Vincent Di Fiore
Sally Kinsey
Mary Beth Tara

General Plan Advisory Committee

Don Alexander
Nancy Dale
Loren De Roy
Larry Goldsmith
Frank Green
Elmer Grimes
Mary Judge
Rick Kern
Jacki McGuire
Ed Newhall
Mary Ann Olson
Barbara Rauch
Frank Rutkosky
Kenneth L. Servis
Joseph Slap
Richard Somers
Richard Snodey

City Staff

Douglas Prichard, City Manager
Samuel Wise, Assistant City Manager
Richard Thompson, Planning Director
Judith Smith, Finance Director
Richard Gill, Community Service Director
Michele Swanson, Public Information Officer
Bonnie Olson, Associate Planner
Oscar Orci, Assistant Planner
David Wahba, Assistant Planner
Eric Skjervem, Assistant Planner
Hollis Jackson, Planning Secretary

Consultant to the City

David Evans and Associates, Inc.

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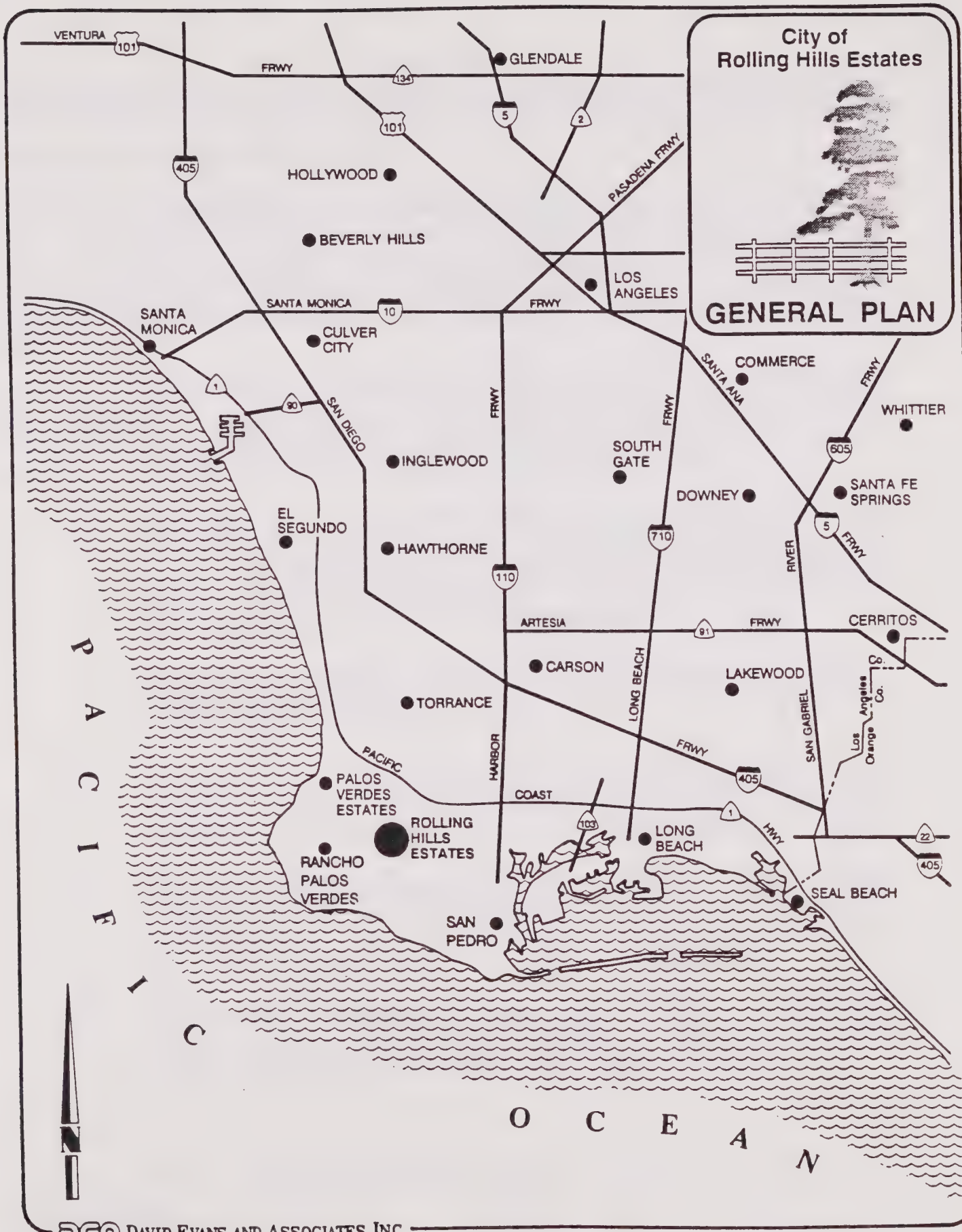
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REGIONAL LOCATION MAP

Exhibit 1-1

SECTION 1
INTRODUCTION TO THE ROLLING HILLS ESTATES GENERAL PLAN

PURPOSE OF THE GENERAL PLAN

The City of Rolling Hills Estates General Plan is a comprehensive, long-range plan designed to serve as a guide for the physical development of the City through this century on into the next. The General Plan consists of an integrated and internally consistent set of goals, policies, and implementation measures. The Plan focuses on those issues of both immediate concern to the community and those that are likely to need consideration in future long-range planning.

The City of Rolling Hills Estates General Plan is in compliance with Section 65302 et seq. of the California Government Code which provides the legal authority for the Plan's preparation and implementation. The City's General Plan contains seven sections or *elements* in accordance with State planning law. These elements include:

- **Land Use Element.** The Land Use Element designates the general location, distribution, and extent of the various existing and permitted land uses. The Element also indicates standards for population density and development intensities. Finally, the Land Use Element indicates those constraints that will need to be considered in future land use decisions.

- **Transportation Element.** The Transportation Element indicates the general location and the extent of the existing and proposed roadways, highways, and public utilities and facilities.

- **Housing Element.** The Housing Element identifies the existing and projected housing needs for the City and establishes appropriate policies, objectives, and programs for the preservation, improvement, and development of housing.

- **Conservation Element.** The Conservation Element establishes policies related to the conservation, development, and use of natural resources in the City. The Element's focus is on water conservation, air quality, ecological resources, and cultural resources.

- **Open Space and Recreation Element.** The Open Space and Recreation Element contains plans and measures related to open space resources as well as the maintenance and development of recreational open space.

- **Noise Element.** The Noise Element examines the existing and future noise environment in the City. The Noise Element promotes land use policies which will encourage noise-compatible uses and assists in the establishment and subsequent enforcement of a local noise ordinance.

- **Public Safety Element.** The Public Safety Element establishes standards and plans for the protection of the community from a variety of hazards including earthquake, flood, fire, and geologic hazards.

Together, the seven Elements clearly state the community's goals and policies for the long term development of the City. As a result, this General Plan serves as the Constitution for the City of Rolling Hills Estates.

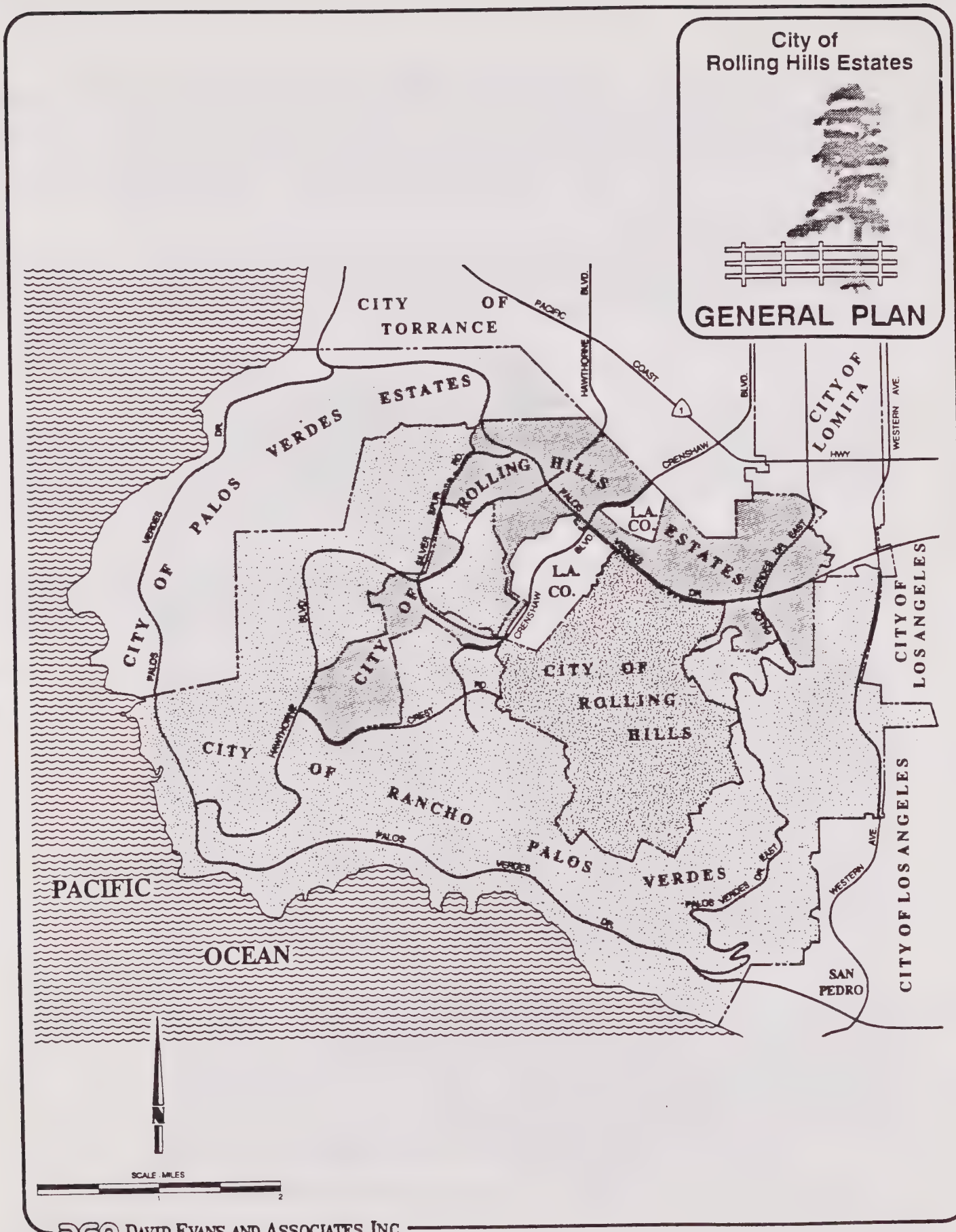
Each element is comprised of four sections. The first section presents a brief overview and introduction to the element. The second section lists the goals and policies relevant to each key issue; the implications of the goals and policies are presented in the third section. Finally, background data necessary for issues identification and plan preparation is included in the Technical Reports that support the various elements.

The Environmental Impact Report (EIR) is the final supporting document of the General Plan. The EIR describes the environmental impacts anticipated to result from the implementation of the plan. The EIR cross-references sections of the elements and technical reports that serve to analyze the environmental impacts of plan policy.

BACKGROUND OF PLANNING

The City of Rolling Hills Estates on the Palos Verdes Peninsula is 23 miles south of Central Los Angeles. The City covers a 4.18 square mile area on the central and northeastern sections of the peninsula. The City of Rolling Hills Estates incorporated on September 18, 1957 in order to preserve and protect a rural community atmosphere. The City's location in a regional and local context is shown in Exhibit 1-1 and Exhibit 1-2 respectively.

The area is almost fully urbanized with lower density residential neighborhoods and scattered concentrations of commercial land uses. Vacant parcels are mostly steep slope areas and canyons. A network of equestrian trails and other equestrian facilities provide a major recreational resource for residents. Growth in the City has been very slow, with the limited increase in single family dwelling units accompanied by a decrease in household sizes.



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VICINITY MAP

Exhibit 1-2

The public played a vital role in both the preparation and implementation phases of the General Plan. As a result, the General Plan reflects goals and objectives of the community at large through the efforts of the General Plan Advisory Committee.

The General Plan Advisory Committee was instrumental in identifying the issues to be addressed in the Plan, and in drafting goals and policies and the General Plan Land Use Map. The members were chosen from each of the neighborhoods within the City; therefore, a cross section of knowledge and concern surfaced from the meetings with this committee.

GENERAL PLAN POLICY

The City of Rolling Hills Estates General Plan covers a diverse range of issues and establishes policy in response to each issue. Furthermore, specific implementation measures have been identified under each policy providing guidance in how to achieve the directive outlined by the policy. The following sections summarize the policies that are considered in this general Plan.

Land use and development is a major issue of concern in the City of Rolling Hills Estates General Plan. The major land use issues that are the focus of the Land Use Element goals and policies include the following:

- **Future Development (Land Use Element).** With the City almost completely urbanized, opportunities for new development are limited to scattered undeveloped lots and several key landholdings. Future development should be targeted at enhancing of the environment and the elimination of incompatible uses. The City is also concerned that future development not compromise the existing character of the community.

- **Rural Residential Character (Housing Element).** City residents have continuously sought to preserve the character of the area as it existed more than 50 years ago. Despite development pressures, Rolling Hills Estates remains a community with lower density, larger lot development, unlike urban areas.

- **Residential Development (Land Use Element).** The City of Rolling Hills Estates is primarily residential in land use with a variety of housing types at varying densities. The lower density residential character of the peninsula has provided residents with a satisfying and desirable community. The quality of the living environment should be maintained through the development standards as provided for on the General Plan's Land Use Policy.

- **Commercial Development (Land Use Element).** The commercial areas in the City are limited to the Peninsula Center Area and a few scattered sites. The present locations provide convenient and accessible retail shops and support services to the area. The City should preserve and maintain the existing commercial district.

- **Public Services (Land Use Element).** In order to maintain a suitable living environment, future planning in the City of Rolling Hills Estates will ensure that adequate support and public services are provided. These include facilities to serve the educational, recreational and domestic needs of residents; water, sewer, power services and other utilities; and police and fire protection services.

A number of key areas of the City are likely to be redeveloped in coming years. The Land Use Element's chief purpose is to indicate the appropriate land uses and the complementary development standards that should apply for future development in the City. The critical redevelopment issues addressed in this General Plan include:

- **Housing Environment (Housing Element).** City residents are proud of their community and the fact that it is perceived as a very desirable place to live. As a result, the maintenance of the neighborhoods has been part of the City's housing program for past decades and will continue to be emphasized in this General Plan Update.

- **Scientific Research & Development (Land Use Element).** The scientific research and development district of the City is the site owned by Northrop Corporation on Crest Road. The facility is used for research related to the aerospace industry. Over the life of the General Plan, this site is likely to be redeveloped and the General Plan needs to identify the appropriate uses for this key area.

- **Chandler Quarry (Land Use Element).** The Quarry District is the site of the old Chandler quarry used for the mining of sand until 1988. The site is currently an engineered landfill with a section used for the manufacture of concrete. A number of studies have been made to plan for the eventual use of the site after landfill operations are complete. This General Plan Update will establish the location and extent of future development in this area.

- **Palos Verdes Landfill (Land Use Element).** The closed Palos Verdes Landfill covers a large area on the northern limit of the City. The recovery of gases

is ongoing with remedial investigation plans under preparation by the Los Angeles County Sanitation District.

Traffic and transportation related problems are a major concern in the City. Much of this traffic is generated from development outside the City. The City's primary goal is to maintain the livability of the City while finding ways to accommodate the increasing volumes of traffic.

- **Safe Driving Conditions (Transportation Element).** The value of safe driving conditions to the pedestrian and the driver cannot be overestimated. The prevention of accidents and the threat to life and property is a major concern in the City.

- **Efficient Traffic Flow (Transportation Element).** The main purpose of the circulation system is to provide the most efficient way for individuals to travel between points of activity. In support of the community's needs, the City is determined to keep traffic flows in the area efficient and non-disruptive.

- **Multi-Use Recreational Trails (Transportation Element).** Alternative ways of travel in the City are provided by equestrian trails, bicycle paths and pedestrian walks. To reduce the dependence on vehicular travel, these means should be promoted and made accessible.

- **Public Transit (Transportation Element).** Public transportation reduces traffic congestion and provides better utilization of City streets. With increasing energy costs, congestion and pollution, it is prudent to consider the expansion of public transportation in the area.

- **Parking Areas (Transportation Element).** The provision of adequate parking areas facilitates the onset and completion of vehicular travel. Inadequate parking often leads to congestion and additional traffic delays.

State and regional governments have mandated that every City and County in California make every effort to provide an adequate supply of housing to meet anticipated demands. The City recognizes the importance of maintaining a supply of housing to meet future housing needs while recognizing there are a number of constraints that inhibit the development of significant numbers of new units, particularly, those units that are classified as being affordable. The following Housing-related issues are the focus of this General Plan:

- **Affordable Housing (Housing Element).** The increasing cost of housing has left many households in the region with inadequate or inappropriate housing. The provision of affordable housing will allow the City to respond to the needs of a special group of households.

- **Housing Conservation (Housing Element).** The majority of the City's housing stock is over 20 years old with only 4.5% of the stock constructed in the past 10 years. Conservation through rehabilitation and maintenance will extend the life of these units and will keep the environment attractive.

- **Housing Needs (Housing Element).** As determined from historic growth patterns, the City's household population will increase by 22 units within the five-year planning period (1989-1994). Housing programs should plan for the provision of adequate housing to serve these future residents.

- **Regional Housing Needs (Housing Element).** The City's housing market is not independent of the regional demand and needs. To address its fair share of regional housing needs, the City is required to consider the provision of housing to meet regional needs as well as local growth (Sections 65581/65584 of the Government Code).

- **Housing Assistance (Housing Element).** Housing programs should be receptive to the needs of special household groups in the City. These special needs groups include the elderly, the low and moderate income households, minorities, female-headed households, and the handicapped while recognizing that market constraints (land value, development costs, and availability of land) will make this difficult.

The City of Rolling Hills Estates has a rich and varied natural environment. A primary focus of this General Plan is to ensure that these resources are preserved for future generations. The following issues were considered in the formulation of General Plan goals and policies:

- **Natural Environment (Conservation Element).** Local efforts to preserve the natural environment will promote harmony between nature and man. The City will support the preservation of those significant resources in the Palos Verdes Peninsula which make it unique from the rest of Los Angeles County.

- **Biological Resources (Conservation Element).** The biological resources of the Peninsula are diverse and some are unique to the Peninsula. Due to existing

development, the City should strive to maintain ecological balance through the protection of its remaining biological resources.

- **Cultural Resources (Conservation Element).** The rich and colorful history of the peninsula provides the area with a sense of importance and historical pride. The preservation of cultural resources will enrich the educational and cultural aspirations of residents and visitors alike.

- **Air Quality (Conservation Element).** The increasing awareness on air quality issues has prompted the adoption of state and regional legislation governing mobile and stationary air pollution sources. While the City has generally good air quality, the need for standards to control pollution should not be discounted.

- **Scenic Roadways (Conservation Element).** The aesthetic qualities of the environment should be preserved along with its resources. Attractive vistas, panoramas and views are plentiful along the City's roadways contributing to the City's desirable environment.

Rolling Hills Estates has an abundance of parks, equestrian facilities, and commercial recreational activities. The General Plan establishes clear policies indicating a need to maintain and preserve these resources and examines opportunities for the creation of new facilities. A number of issues discussed in this General Plan includes the following:

- **Maintain Existing Open Space (Open Space & Recreation Element).** Open space areas in the City characterize the rural character of the area and provide recreational opportunities. Continued growth puts pressure on open space areas for their development to more urban uses.

- **Recreational Areas (Open Space & Recreation Element).** The recreational needs and interests of a community are served by local parks and facilities. Rolling Hills Estates should continue to provide opportunities for all residents to meet recreational needs.

- **Development of Open Space, Parks and Recreational Facilities (Open Space & Recreation Element).** Additional development of open space, parks and recreational facilities should accompany growth and development in the City. Preservation efforts will allow the area to maintain its rural character and the quality of the environment.

Public safety and health issues are a focus of a number of General Plan elements:

- **Acceptable Noise Levels (Noise Element).** Excessive noise levels disrupt human activities and often result in health problems. To support ongoing activities and protect the residents of Rolling Hills Estates, levels of tolerance for noise should be established.

- **Noise Control (Noise Element).** When noise sources cannot be prohibited without undue hardship, measures for minimizing potential adverse noise impacts on noise-sensitive land uses should be established.

- **Critical Facilities (Public Safety Element).** Critical facilities refer to those facilities occupied by dependent populations and those that are designed to protect public health and safety. It is important that critical facilities remain functional during disasters and emergencies so that they may continue to serve the rest of the City.

- **Future Development (Public Safety Element).** The City may prevent the creation of additional hazards in the planning area through the review of proposed developments, making sure that they are not exposed to existing hazards and do not create new ones to adjacent land uses.

- **Geologic Hazards (Conservation Element).** Grading and construction activities could disrupt the stability of soils and create geologic hazards. The City will make every effort to make sure new development will not result in unstable soils, soil erosion, or landslide.

- **Disaster Planning (Public Safety Element).** So as to minimize the damage to life and property that natural and man-made disasters may cause, a plan for prevention, preparedness and reconstruction should be developed.

- **Individual Responsibilities (Public Safety Element).** Individuals and agencies should take on the responsibility of protecting themselves from harm. Also, assistance from other individuals and agencies will provide the City with increased manpower and resources to better protect public health, safety and welfare.

- **Crime (Public Safety Element).** The City of Rolling Hills Estates and the L.A. County Sheriff's Department will continue to work together to provide

residents with safety and security. Criminal activities will be met with measures designed to deter criminal activity.

- **Hazardous Materials (Public Safety Element).** The unhealthful effects of certain chemicals and substances has led to extensive regulation of identified hazardous materials. The City should actively verify that proper regulation of the use, generation, transport and disposal of hazardous materials in the City in order to protect the health and safety of residents.

The following matrix (Table 1-1) lists the major issues and goals under each element and the corresponding policies. As the matrix indicates, a number of policies in other elements will serve as effective mitigation measures.

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Land Use Element:							
Future Development: Ensure that future development is compatible with the existing character of the City and this development will be sensitive to the local environment.	1.1 1.2 1.3 1.4 1.5	2.7 2.10	2.3 2.6 3.1 3.2 3.3 5.2 5.5	1.4 1.5 1.6	3.1 3.2 3.3 3.4 3.5 3.6	1.4 1.7 1.8 1.9	1.2 2.1 2.2 2.3 2.5 2.6
Residential Areas: Growth in the City shall be limited and the objective of future planning shall be directed towards preserving the lower density and rural character of the City.	2.1 2.2 2.3 2.1 2.5 2.6 2.7 2.8	2.7 2.9 2.10 3.1 3.3	1.5 1.6 2.1 2.2 2.3 2.4 2.5	1.3 1.4 1.9 6.1 6.3	1.1 1.2 1.3 1.4 1.5 3.7	1.9	2.1 2.2 2.9 2.10

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Commercial Areas: Maintain and preserve the existing land area within the commercial district designated on the General Plan land use map so that the needs of area residents are served.	3.1 3.2	5.2 5.3 5.4 5.5					1.1 3.6 3.8 4.3 6.2
Special Subareas: The City should provide for the future development of the Northrop property to ensure that the future redevelopment is beneficial to the City.	4.1	1.6 2.9 4.2 4.3		3.5		1.8 2.1	1.9
Special Subareas: Control the use and conversion of the existing quarry operations to best serve the needs of the community.	5.1 5.2	1.5 1.6	1.6 3.1 3.2 5.2	1.9 1.12 3.5 6.1		1.2	6.3
Special Subareas: Control the use and conversion of the former Palos Verdes Landfill to protect public health & safety of area residents.	6.1 6.2			1.9			6.3 6.4
Institutional Uses: Control the use, expansion, and recycling of the Dapplegray School site, and other institutional uses so they are able to serve the present and future needs of the community.	7.1 7.2 7.3 7.4 7.5	2.14 5.7		1.9		1.7	

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Support and Public Services: Maintain areas to serve the educational, recreation, domestic, and other needs of the community and provide necessary public services and infrastructure.	8.1 8.2 8.3 8.4 8.5	2.6 2.14 3.1 4.6 5.4		1.4 1.5			2.7 2.8 2.9 2.11
Transportation Element:							
Traffic Safety: Provide for safe driving conditions on all City streets.	1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 1.10 1.11 1.12 1.13 1.14	1.1 1.2 1.3 1.6 1.7 1.8 1.9 1.10 1.11 1.12 1.14 2.5	1.7	1.10			2.4 6.1
Efficient Traffic Flow: Promote efficient traffic flow on City streets without compromising the lower density character of Rolling Hills Estates.	2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10 2.11	2.12 2.13 2.14	1.7	1.10			

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Multi-Use Recreational Trails: Provide safe & comprehensive trail systems for equestrian, bicycle, and pedestrian use and promote the development of connectors between existing trail systems where feasible.	2.5 8.2 8.3	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 3.10		1.1	2.6 3.6 3.8		
Transit and Transportation Demand Management: Promote greater use of public transit as an alternative means of transportation.	8.5	4.1 4.2 4.3 4.5 4.6					
Parking: Promote efficient, safe and convenient parking facilities within the commercial areas of the City.		5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8					
Housing Element:							
Housing Environment: Maintain a decent and satisfying home environment for Rolling Hills Estates residents.	2.5 3.1 3.2 7.1 8.5	1.4 1.6 2.3 2.4 2.5 2.11 2.12 5.6	1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8		1.2 1.3 1.5	1.9 2.2 2.3	2.6

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Rural Residential Character: Require future housing developments to be sensitive to the unique natural environment and rural character of Rolling Hills Estates.	1.1 1.2 2.1 2.2 2.4 2.6 2.8 8.5	2.9 2.10 3.1 5.5	2.1 2.2 2.3 2.4 2.5 2.6	1.4 1.9 1.10 2.3 5.1 6.1 6.2	3.3 3.4 3.7	1.8 1.9	2.1 2.2 2.3 2.9 2.10
Affordable Housing: Provide affordable housing units in the City where appropriate.			3.1 3.2 3.3 3.4				
Housing Conservation: Conserve, preserve and rehabilitate the existing housing stock through the enforcement of standards, regulations, codes and procedures established by the City.	2.3		4.1 4.2 4.3 4.4 4.5				
Housing Needs: The City will work to provide adequate housing to meet the current and anticipated needs of the community.			5.1 5.2 5.3 5.4 5.5				
Regional Housing Needs: Solicit and advocate regional cooperation in realizing regional housing needs.			6.1 6.2				
Housing Assistance: Make every effort to provide housing assistance to residents of the City in need of such assistance.			7.1 7.2 7.3 7.4				

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Conservation Element:							
Natural Environment: Preserve the natural environment of the Palos Verdes Peninsula through the conservation of natural resources, the maintenance of a balanced ecology and the prevention of environmental degradation.	1.1 2.4 2.6	1.4	2.5 2.6	1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 1.10 1.11 1.12	1.1 1.2 1.3 1.4 1.5 3.1 3.2	1.1 1.2 1.3	
Biological Resources: Preserve local plant and animal life and their habitats in the Peninsula.	1.1 2.6		2.6	2.1 2.2 2.3 2.4	1.1 1.3 1.4 1.5		2.6
Cultural Resources: Promote the preservation of cultural, historical and natural resources within the City.	1.1 2.4 2.6		2.5 2.6	3.1 3.2 3.3 3.4 3.5	1.1 1.2 1.3 1.4 1.5 3.1 3.2		

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Geologic Hazards: Minimize grading and significant changes in the natural topography and grading activities should be designed to preserve the unique and significant cultural and biologic features to maintain the identity, image and environmental qualities of the City.	1.2 2.2			6.1 6.2 6.3	3.7		2.3 2.5 2.9
Open Space and Recreation Element:							
Maintain Existing Open Space: Maintain existing natural open spaces, parks and recreational facilities.	1.2 1.3 7.4 7.5 8.3 8.5	3.1	2.5 2.6	1.1 1.3 1.9 1.10 5.1 6.3	1.1 1.2 1.3 1.4 1.5	2.3	2.6 2.9
Recreation Areas: Provide for the recreational needs of residents of the City.	7.4 8.3 8.5	3.1		3.3 3.4	2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9		

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Development of Open Space, Parks, and Recreational Facilities: Develop additional parks and recreational facilities and preserve open space areas under private ownership.	5.2 8.2 8.5	3.2 3.6 3.7 3.8 3.10	2.5 2.6	1.1 1.3 1.9 1.10 3.2 3.3 6.1	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8	2.3	2.9
Noise Element:							
Acceptable Noise Levels: Implement acceptable noise level guidelines included in the Noise Element for each land use category.	2.1 2.4 3.2 4.1	1.4 1.11 1.14 2.1 2.9 2.12	1.5 1.7 4.5	1.11	1.1 1.2	1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9	
Noise Control: Promote the control and reduction of traffic noise and stationary noise created on existing and proposed land uses.		1.4 1.11 1.14 2.1 2.2 2.3 2.4 2.5 2.12 2.13 4.1	1.5 1.7 2.5	1.9 1.10 1.11		2.1 2.2 2.3	

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Public Safety Element:							
Critical Facilities: To the fullest extent possible, the City will work with the County to ensure that critical structures remain safe and functional in the event of a disaster.							1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9
Future Development: Require that the City's Planning and Engineering Departments review future development projects in the City.	1.1 1.2 2.1 2.2 2.4 4.1 5.1 5.2 6.2 7.1	2.7 2.9 2.10	1.5 1.6 2.3 2.6	1.3 1.4 1.9 1.10 5.1 5.2 6.1 6.2	3.7	1.8 1.9	2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10 2.11
Disaster Planning: Plan and provide for the occurrence of disasters and emergencies.							3.1 3.2 3.4 3.5 3.6 3.7 3.8 3.9 3.10

TABLE 1-1
POLICIES MATRIX

Issue	Land Use Policy #	Transportation Policy #	Housing Policy #	Conservation Policy #	Open Space Policy #	Noise Policy #	Public Safety Policy #
Individual Responsibilities: Assign key individuals in both the public and private sectors the responsibility of implementing public safety programs.							4.1 4.2 4.3 4.4
Crime: Reduce local crime, to the greatest extent possible.							5.1 5.2 5.3
Hazardous Materials: Reduce the potential for hazardous waste contamination in the City.		1.1 1.10 1.12 1.14					6.1 6.2 6.3 6.4 6.5 6.6
Source:							

City of
Rolling Hills Estates



GENERAL PLAN

Land Use Element

SECTION 2.1
INTRODUCTION

The City of Rolling Hills Estates Land Use Element is a state-mandated element and fulfills the requirements of *Section 65302(a) of the California Government Code*. The Element contains the goals and policies regulating future development, a land use plan to implement these goals, and a discussion of the issues and opportunities which will need to be considered in future land use planning.

The Land Use Element's scope is far greater than that of the other elements although it is directly related to all of them. For example, the provision of adequate areas to meet housing needs is an important issue that must be addressed in the Housing Element. The capacity of the existing roadway network (Transportation Element), open space and recreation areas (Open Space and Recreation Element), areas with earthquake and geologic hazards (Public Safety Element) and land uses affected by major noise sources (Noise Element) are other examples of the many issues that the Land Use Element must integrate into its plan.

The Land Use Element of the *Rolling Hills Estates General Plan* provides a strategy for the coordination and integration of all physical development in the City. The Element outlines goals and policies which promote limited, orderly growth while, at the same time, minimizing the potential for land use conflicts. The Land Use Element also provides the framework for land use regulations that govern the location, type, and character of existing and future development in the City.

The Element begins by establishing Land Use Policy that applies to both existing and future development in the City. Specific standards for various land uses are discussed including those related to the development intensity (lot coverage) and density. Finally, the Land Use Policy is described in a series of maps indicating the location and extent of land uses within each of the communities that comprise the City.

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SECTION 2.2
GOALS AND POLICIES

The Land Use Element is a guide for future development and for minimizing the potential for land use conflicts. The element regulates land uses in the City in terms of location and density and the goals and policies of the Land Use Element address concerns on land use issues and future development. The Element indicates opportunities for growth and development in the area while being sensitive to the topography, earthquake faults, geology, flooding potential, availability of services and infrastructure.

Issue: Future Development

With the City almost completely urbanized, opportunities for new development are limited to scattered undeveloped lots and several key landholdings. Future development should be targeted at enhancing of the environment and the elimination of incompatible uses. The City is also concerned that future development not compromise the existing character of the community.

Goal 1 **Ensure that future development in the City is compatible with the existing character of the City and that this development will be sensitive to the local environment.**

Policy 1.1 Development that does not preserve and enhance the quality of the local environment will be discouraged.

1.1.1 Implementation Measure: The City will implement the General Plan Land Use policy and undertake the necessary zoning ordinance revision. The Zoning Ordinance revision will be initiated following adoption of the General Plan.

Timing: Begin 1992
Agency: Planning Department
Funding: General Fund

Policy 1.2 Future development must be compatible with and comply with adopted land use plans and standards, traffic facilities, open space requirements and neighborhood compatibility requirements.

1.2.1 Implementation Measure: The City will continue to implement the Neighborhood Compatibility Ordinance. The ordinance will be expanded to ensure that the discretionary review considers adopted land use plans, open space requirements, and aesthetics.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 1.3 Maintain the current balance of land uses (residential, commercial, institutional, recreational) within the City of Rolling Hills Estates.

1.3.1 Implementation Measure: The City will continue to implement the Neighborhood Compatibility Ordinance for residential uses. The ordinance should be expanded to ensure that the discretionary review considers adopted land use plans, open space, and aesthetics. The City will implement the land use plan for commercial and institutional uses.

Timing: Immediate and ongoing.
Agency: Planning Department
Funding: General Fund

Policy 1.4 Promote and encourage increased public participation in City decision-making as it relates to land use planning and programs through newsletters, polls, public hearings, and voluntary services.

1.4.1 Implementation Measure: The City will utilize the quarterly newsletters as a means for residents to indicate a preference on a particular issue. The results of the surveys will be announced in subsequent issues. The City will continue to use the local public access cable television as a means to advertise upcoming Commission and Council meetings.

Timing: Begin in 1993
Agency: Planning Department, City Manager
Funding: General Fund

1.4.2 Implementation Measure: Agendas for the City Council and Commissions will be advertised on the public access cable. Council meetings will continue to be aired on the local cable.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General Fund

Policy 1.5 Establish monitoring programs, joint use programs, and other programs that will aid in co-operative planning efforts with neighboring communities.

1.5.1 Implementation Measure: The City will continue to participate in southwest Area Planning Council Meeting (SWAPC).

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Issue: Residential Areas

The City of Rolling Hills Estates is largely developed in residential land uses containing a variety of housing types at varied densities. The lower density residential character of the Peninsula has provided residents with a satisfying and desirable community. The quality of the living environment should be maintained through the development standards as provided for under the General Plan's Land Use Policy.

Goal 2 **Growth in the City shall be limited and the objective of future planning shall be directed towards preserving low density and the rural character of the City.**

Policy 2.1 Ensure that the character and design of new residential development is consistent with existing development located nearby.

2.1.1 Implementation Measure: Continue to implement the Neighborhood Compatibility Ordinance in review of new development.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 2.2 Limit development in areas where existing roads, infrastructure, schools, and public services will be adversely impacted.

2.2.1 Implementation Measure: The City will implement the General Plan Land Use Policy and undertake the necessary zoning ordinance revision. Future proposals involving zoning ordinance revisions and General Plan amendments will be required to undergo environmental review as required by law. Supporting infrastructure must be in place before development can occur. The Planning Commission and the City

Council are required to make the appropriate findings in the approval of future development.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 2.3 Encourage the maintenance and preservation of existing housing units to prevent the deterioration of these units.

2.3.1 Implementation Measure: Code enforcement efforts will be continued at current levels. The nuisance abatement policies will be reviewed and updated.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 2.4 New residential development, if any, shall be buffered from heavy traffic on major roadways whenever and wherever possible.

2.4.1 Implementation Measure: Open space, landscaping, berms, or other appropriate design measures will be required as buffering for new development. City staff will review the Zoning Ordinance and Neighborhood Compatibility Ordinance to make sure buffering provisions are provided.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 2.5 Encourage and work with other cities on the peninsula to promote the protection of the rural residential character of the area through policies in their General Plans, local coastal programs and trail network plans.

2.5.1 Implementation Measure: The City will contact all other jurisdictions on the Peninsula to make sure Rolling Hills Estates is identified to receive the Notice of Preparation (NOP) of reports for future projects.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 2.6 Develop view preservation guidelines for use within the City and enforce height controls to lessen potential view impacts.

2.6.1 Implementation Measure: Revise the Neighborhood Compatibility Ordinance as appropriate to consider viewsheds pursuant to the guidelines described in the Conservation Element. The City will prepare a brochure outlining design guidelines which will include View Preservation Guidelines.

Timing: Begin in 1993
Agency: Planning Department/City Manager
Funding: General Fund

Policy 2.7 Continue to implement the City's Neighborhood Compatibility Ordinance and any supporting guidelines and policies.

2.7.1 Implementation Measure: The City will continue to implement the neighborhood compatibility ordinance.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 2.8 Implement the Neighborhood Compatibility Ordinance and the Precise Plan of Design Ordinance for residences and businesses requiring that all roofing on a structure or multiple structures in the same development be compatible.

2.8.1 Implementation Measure: The City will review development standards in the City's Zoning Ordinance and the Neighborhood Compatibility Ordinance. Where appropriate, these ordinances will be revised to promote the use of a single type of roofing material on a structure or multiple structures in the same development.

Timing: Begin in 1993
Agency: Planning Department
Funding: General Fund

Policy 2.9 Develop Hillside Development Guidelines for use within the City.

2.9.1 Implementation Measure: The City will develop Hillside Development Guidelines which will include regulations regarding grading, useable area for horse keeping and equestrian uses and decks which cantilever into canyons.

Timing: 1994
Agency: Planning Department
Funding: General Fund

Issue: Commercial Areas

The commercial areas in the City are limited to the Peninsula Center Area and a few other scattered parcels. The present commercial locations provide convenient and accessible retail shops and support services to the area. The City should preserve, maintain, and encourage the enhancement of the existing commercial uses and the Peninsula Center district.

Goal 3 **Maintain and preserve the existing land area within the commercial district designated on the General Plan land use map so that the needs of area residents are served.**

Policy 3.1 Continue to concentrate retail commercial uses in the Peninsula Center Commercial district and ensure that future commercial development reflects the rural character of Rolling Hills Estates. This development must reflect the City's rural character in terms of site plan design, architecture (use of wood, landscape buffering, etc.) and landscaping.

3.1.1 Implementation Measure: The City will implement the General Plan Land Use Policy and undertake the necessary Zoning Ordinance revision, to ensure existing commercial uses are retained, and where appropriate, are enhanced.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 3.2 Ensure that commercial developments are compatible with and buffered from surrounding land uses that are sensitive to commercial development so that they are protected from potentially adverse impacts.

3.2.1 Implementation Measure: Continue to implement the Precise Plan of Design Ordinance.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 3.3 Nonconforming commercial and service uses shall be amortized. Strip developments will continue to be prohibited, and all commercial and service facilities will be controlled to benefit the general welfare with public needs considered before investment.

3.3.1 Implementation Measure: City staff will prepare a list of nonconforming uses in the City and establish amortization periods for each one.

Timing: 1995
Agency: Planning Department
Funding: General Fund

Issue: Scientific Research and Development District

The scientific research and development district of the City applies to the site owned by Northrop Corporation on Crest Road. The facility is used for research related to the aerospace industry. Over the life of the General Plan, this site may be redeveloped and the General Plan needs to identify the appropriate uses for this key area which is subject to the rights of Northrop under the Development Agreement between the City and Northrop dated November 26, 1983 and which rights will expire on November 26, 2003.

Goal 4 **The City should provide for the future development of the Northrop property to ensure that the future redevelopment is beneficial to the City.**

Policy 4.1 Ensure that future development other than the expansion of the existing SR-D facilities, contemplated by the development agreement is compatible with the adjacent residential uses.

The following guidelines will be adhered to when considering future redevelopment of the Northrop property. A special studies designation has been assigned to the Northrop property which would permit up to 2 units per acre. The actual density, character, extent and location of development will be determined in subsequent phases of planning and environmental review.

- The project site is designated as *Low Density Residential (2 units/acre)* in the General Plan.
- The development envisioned for the property will maximize open space.
- Existing mature trees on the property will be retained as much as this is possible. A one-to-one replacement of mature trees should be adhered to.
- The periphery will be left open for a multi-use trail and/or landscaped open space.
- The project will be compatible with surrounding development and conform to neighborhood compatibility guidelines.
- Housing units adjacent to the periphery will be single-story.
- Development will be sensitive to the local topography and grading will be kept to a minimum. Development should be concentrated in those areas that are level.
- The residential units will not exceed the height limitations established by City code (27 feet).
- Primary access to the property will be from Crest Road.
- Open space areas within the property will be interconnected and connections with adjacent open space should be provided.
- A variety in the density of housing units will be considered.
- Existing ocean views from the adjacent Ranch properties will be maintained through the use of open space.
- Landscaped open space will account for at least 30% of the total acreage of the property.
- The project shall include a floating overlay zone for properties at periphery/potential for equestrian lots adjacent to trails.

4.1.1 Implementation Measure: The City will implement the General Plan Land Use Policy and undertake the necessary zoning ordinance revision.

Timing: Begin in 1993
Agency: Planning Department
Funding: General Fund

Issue: Quarry District

The Quarry District is the site of the old Chandler Quarry which was used for the mining of sand until 1988. A portion of the site is currently an engineered landfill with a section used for the manufacture of concrete. A number of studies have been made to plan for the eventual reuse of the site after landfill operations are complete. This General Plan Update establishes the location and extent of future development in this area.

Goal 5 **Control the use and conversion of the existing quarry operations to best serve the needs of the community.**

Policy 5.1 Monitor the use of the Chandler Quarry landfill to ensure that the site will be suitable for future use with no risks to public health and safety.

5.1.1 Implementation Measure: City staff will review closure plans and reclamation plans to ensure the public's health and safety are protected.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 5.2 Ensure that future development in the Quarry area is compatible with low density residential developments surrounding it. The following guidelines will be adhered to when considering future development of the Quarry:

- A *Cultural Overlay* should be designated on the property to protect any cultural resources that may be present on the site.
- Maintain the existing golf course (the course should be designated as *Commercial Recreation* in the General Plan).
- Chandler Trust property should be maintained as 1 unit/5 acres.

- The certified compacted portion of the quarry should be designated as Very Low Density Residential (zoned RAE 1 house/acre) with an "H" Overlay.
- The portions of the site that are uncertified fill should be reserved for *Commercial Recreation.*
- The undeveloped portions of the landfill next to the water company property should be designated in such a way to promote affordable housing.
- Palos Verdes Drive East could be straightened with a parkland buffer between PVDE and the Bridlewood neighborhood.

Issue: Palos Verdes Landfill

The closed Palos Verdes Landfill covers a large area on the northern limit of the City. The recovery of gases is ongoing with remedial investigation plans under preparation by the Los Angeles County Sanitation District.

Goal 6 **Control the use and conversion of the former Palos Verdes Landfill to protect public health and safety of area residents.**

Policy 6.1 Participate in the ongoing remedial investigation/feasibility study being carried out by the Los Angeles County Sanitation District for the Palos Verdes Landfill site.

6.1.1 Implementation Measure: The City will work with the Los Angeles County Sanitation District in the review of a subsequent implementation of the remediation plan.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 6.2 Implement the General Plan Land Use Policy for the Palos Verdes Landfill which will permit the development of commercial/recreation pursuant to the following guidelines:

- Portions of the Landfill will be improved as a golf course.

- The new equestrian facility may be located within the site.
- Multi-use trails will be provided within and around the site.
- Landscaping and design treatments along Crenshaw and Hawthorne Boulevards must be retained.
- Methane gas will continue to be monitored and collected over the life of the development.
- The City and the Los Angeles County Sanitation Districts will cooperate in future planning efforts.

6.2.1 Implementation Measure: The City will implement the General Plan Land Use Policy.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Issue: Institutional Uses

The City's plans call for the retention of institutional uses throughout the City as much as this is possible. Once school sites, parkland, and other sites occupied by institutional uses are lost they are difficult and expensive to replace.

Goal 7 **Control the use, expansion, and recycling, to the extent possible, of all institutional sites so that the land, existing facilities, and any improvements can be reserved for future use as a public school, if needed, and/or by existing activities and other activities.**

Policy 7.1 Future institutional uses of the sites which are closed must be compatible with low density residential uses surrounding the site.

7.1.1 Implementation Measure: The City will implement the General Plan Land Use Policy. The necessary zoning ordinance revision for institutional zones has already been undertaken.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 7.2 Preserve/retain the existing institutional uses by encouraging the school district to lease its property so that the land, facilities, and improvements can be reserved for future use by activities which are compatible with residential neighborhoods.

7.2.1 Implementation Measure: City staff will offer to meet with the school district and other special districts to discuss strategies for using the existing facilities in a manner that will enable the district to receive revenue from the property.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General Fund

Policy 7.3 Discourage the removal of classroom buildings, unless replacement buildings can be easily used as classrooms in the future.

7.3.1 Implementation Measure: The City will review all future applications for future development and the extent of demolition anticipated with future development.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 7.4 Retain, to the greatest extent possible, the existing public recreation areas zoned for institutional uses for public use.

7.4.1 Implementation Measure: The City will implement the General Plan Land Use Policy. The City will program the future acquisition of public sites for future park use.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 7.5 Retain an even distribution of institutional sites throughout the City to provide for present and future needs of the community.

7.5.1 Implementation Measure: The City will implement the General Plan Land Use Policy.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Issue: Support and Public Services

In order to maintain a suitable living environment, future planning in the City of Rolling Hills Estates will provide support and public services. These include facilities that serve the educational, recreational and domestic needs of residents including water, sewer, power services and other utilities, law enforcement, and fire protection.

Goal 8 **Maintain areas to serve the educational, recreational, domestic, and other needs of the community and provide the necessary public services and infrastructure.**

Policy 8.1 Maintain high usage public services such as post offices, libraries, medical facilities in non-residential and commercial areas.

8.1.1 Implementation Measure: The City will implement the General Plan Land Use Policy and undertake any necessary zoning ordinance revision required to maintain these uses.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 8.2 Identify locations for a permanent site for the City's Equestrian Center and develop a general design and operational plan for the facility.

8.2.1 Implementation Measure: The City will implement the General Plan Land Use Policy and undertake the necessary Zoning Ordinance revision. The Open Space and Recreation Element indicates areas where a future Equestrian Center could be constructed.

Timing: Begin in 1995
Agency: Planning Department/Community Services Dept.
Funding: General Fund

Policy 8.3 Where appropriate all residential neighborhoods should be connected by multi-use recreational trails.

8.3.1 Implementation Measure: The City will implement the Master Plan of Trails.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 8.4 Work with the school district and private institutional uses to maintain existing facilities in the City so that the existing and future educational needs of the residents can be met.

8.4.1 Implementation Measure: The City will continue to meet with the School District to discuss the district's future plan for facilities in the City.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General Fund

Policy 8.5 Review available infrastructure and public services to determine current service levels required to meet existing and projected demand.

8.5.1 Implementation Measure: The City will implement a development monitoring system as part of its environmental review process. The City will review potential impacts of future development.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 8.6 Identify a location for a Community Center.

8.6.1 Implementation Measure: The City will implement the General Plan Land Use Policy and undertake the necessary zoning ordinance revision to accommodate a Community Center.

Timing: Being in 1993
Agency: Planning Department
Funding: General Fund

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SECTION 2.3
LAND USE PLAN

INTRODUCTION TO GENERAL PLAN LAND USE POLICY

The Land Use Plan contained in this Element is the most important component of the *City of Rolling Hills Estates General Plan*. The land use map indicates the location and extent of permitted development in the City. In Rolling Hills Estates, the land use map largely corresponds to the current development in the City since the focus of this General Plan is aimed at growth management rather than redevelopment.

The State of California planning law requires that land use plans be consistent with the zoning map. This consistency provision is extremely important since the zoning ordinance will be the primary mechanism used in the Plan's implementation. For example, an area designated for commercial development on the land use map must have a corresponding commercial zone district designation. In instances where there is a conflict and an inconsistency arises, the general plan designation should prevail. The State law indicates that local governments have a "reasonable amount of time" to amend their zoning ordinances to ensure consistency.

GENERAL PLAN LAND USE DESIGNATIONS

The land use map indicates the location and extent of permitted development throughout the City. Land use categories or "designations" on the map indicate the type of development that is permitted in specific areas of the City. These land use categories also contain standards for *development intensity* and *population density*. The reason for these standards is to ensure that citizens, staff, and decision-makers clearly understand the implications of the land use plan in terms of both existing and future development.

Development intensity refers to the size or degree of development possible within a land use category. For example, development intensity standards may use the ratio of a building's floor area to the total lot area (referred to as a floor area ratio), the number of dwelling units per acre, or traffic generation. The population density standard generally applies to residential land use designations and is most often expressed in persons per acre. The population standard is commonly derived by multiplying the number of housing units per acre permitted in a particular land use category by an average household size.

The land use plan for the City of Rolling Hills Estates (shown in Exhibits 2-1 through 2-14) consists of ten categories of land use. Four of the land use designations relate to commercial development, four categories correspond to residential development, and a

single category each corresponds to institutional uses and open space. Table 2-1 below summarizes the land use designations shown on the City's current General Plan map.

TABLE 2-1
SUMMARY OF GENERAL PLAN DESIGNATIONS

Commercial General	The main commercial district of the City along Silver Spur Road is designated as **Commercial General** on the land use plan.
Commercial/Office	The Commercial/Office applies to office and administrative activities. A number of smaller parcels of land at different locations in the City are identified as **Commercial Office**, usually at key intersections.
Neighborhood Commercial	**Neighborhood Commercial** refers to smaller single commercial uses located at key intersections.
Commercial Recreation	A number of private riding clubs, tennis clubs, and golf courses are designated as **Commercial Recreation**.
Very Low Density Residential	Areas designated as **Very Low Density** on the land use map correspond to areas that include the Chandler Trust, the compact portion of Chandler Quarry property and areas along Strawberry Lane.
Low Density Residential	This category applies to single-family detached units constructed on large lots. Most of the areas designated as **Low Density Residential** correspond to areas within the equestrian overlay.
Medium Density Residential	This category applies to single-family detached units constructed on smaller lots. Most of the area designated as **Medium Density Residential** is located in the Rollingwood area, an area on Crest west of The Ranch and in an area adjacent to Hawthorne Boulevard. Not more than four units per gross acre are permitted.
High Density Residential	This designation applies to multiple-family detached and attached units constructed as gross densities of up to eight units per acre. Most of the area designated as **High Density Residential** is located in three distinct areas in the western portion of the City.
Institutional	The **Institutional** category applies to a wide range of public uses including public schools, private schools, churches, City Hall, and other public and quasi-public uses.
Open Space	The **Open Space** category refers to public parks and private land reserved for open spaces.
Source: City of Rolling Hills Estates General Plan Map.	

The *Comprehensive Zoning Ordinance of the City of Rolling Hills Estates* is the primary implementation mechanism for the General Plan Land Use Policy. The zoning ordinance

regulates all development in the City by designating areas where specific land uses are allowed. The zoning ordinance consists of two primary components: the development standards and the zoning map. The development standards are detailed in the ordinance text and include lists of permitted uses and various standards governing setbacks, lot sizes, building height, etc. The zoning map is very specific in that every parcel of land in the City is assigned a zone district designation. Table 2-2 indicates the Standards for the General Plan Designations, the corresponding Zone Districts, and the land area included within the designation.

TABLE 2-2
LAND USE DESIGNATION STANDARDS

General Plan Designation (Area)	Zone District	Description
Estate Density & Very Low Density Residential (111 acres total)	RAE	Single-family detached residential units with a maximum density of 1 unit per 5 acres or 1 unit per acre and a population density of 3 persons per acre.
Low Density Residential (822 acres)	RA - 20,000, RPD	Single-family detached residential with a maximum density of 2 units per acre and a population density of 6 persons per acre.
Medium Density Residential (184 acres)	RA - 10,000, RA - 15,000, and RPD	Single-family detached residential with a maximum density of between 2-4 units per acre, depending on applicable zone district. Population density ranges from 6 to 11 persons per acre.
High Density Residential (93 acres)	RPD	Multiple-family attached residential development with a maximum density of 8 units per acre and a population density of 22 persons per acre.
Commercial General (98 acres)	C-G: Commercial General	Retail Commercial with a maximum floor area ratio of 3 to 1.
Commercial Office (15 acres)	C-O: Commercial Office	Professional and administrative office uses with a maximum floor area ratio of 1 to 1.

TABLE 2-2
LAND USE DESIGNATION STANDARDS

General Plan Designation (Area)	Zone District	Description
Neighborhood Commercial (7 acres)	C-L: Commercial Limited	Business and professional services and retail with a maximum floor area ratio of 4 to 1.
Commercial Recreation (264 acres)	C-R: Commercial Recreation	Archery ranges, tennis courts, equestrian facilities, riding clubs, golf courses, and country clubs with a maximum floor area ratio of 0.25 to 1.
Open Space (100 acres)	No corresponding zone	
Institutional (342 acres)	I: Institutional	Schools, churches, and other public institutional uses with a maximum floor area ratio of 0.75 to 1.0.
Note: Population density standards assume an average household size of 2.78.		

GENERAL PLAN OVERLAY DESIGNATIONS

The General Plan provides for a number of *Overlay Designations* which identify additional development standards that must be considered in future planning and development. These overlay designations are analogous to overlay zones commonly found in zoning ordinances in that they indicate additional development requirements above and beyond those included in the base General Plan land use designations and zone districts. The overlay designations included in the City of Rolling Hills Estates Land Use Element are listed below:

- *Cultural Resources Overlay.* This designation applies to a portion of the City where archaeological resources are known or suspected to exist. The Conservation Element details appropriate actions that must be followed when property is included within this designation. All areas designated as having a high sensitivity in the Conservation Element are included within the Cultural Resources Overlay.

- *Horse Overlay.* A substantial portion of the City is located within a Horse Overlay zone district which identifies those areas where keeping of horses is permitted and where horse keeping areas are required to be preserved. This

General Plan also contains a Horse Overlay designation which is identical to that outlined in the Zoning Ordinance.

- ***Scenic Corridor Overlay.*** The Conservation Element includes an Scenic Corridor Overlay designation which applies to a number of important arterial roadways in the City. The roadways include Hawthorne Boulevard, Palos Verdes Drive North, Crenshaw Boulevard, and Silver Spur Road. The Overlay applies to all properties abutting the designated roadways. The Conservation Element outlines specific guidelines that need to be adhered to in future development along these corridors.

- ***Parks Development Overlay.*** This designation applies to those areas of the City where new park facilities development may occur pursuant to General Plan Land Use Policy. This overlay designation is different from the other overlay zone in that it functions like a *floating zone*. The designation indicates a general area where future development is likely without identifying specific parcels. Three areas of the City have been included in this designation: Dapplegray School, Palos Verdes Landfill, and George F. Canyon.

- ***Ecological Resource Overlay.*** This overlay designation applies to those portions of the City where sensitive habitats are located. Any areas within the City identified as having a *high ecological sensitivity* in the Conservation Element is located within this overlay designation. The Conservation Element (Section 5.3) indicates specific guidelines that must be adhered to when planning and developing in these areas.

- ***Multi-use Trail Overlay.*** The Open Space and Recreation Element contains a *Master Plan of Trails* which identifies both existing and future trails. This designation is consistent with the Trails Master Plan in terms of location and classification of the trail.

- ***Hazards Management Overlay.*** The Public Safety Element indicates those areas of the City which may be subject to some type of environmental hazard. These areas subject to seismic risk, flood hazard, or slope stability are included within the Hazards Management Overlay. The Public Safety Element outlines the guidelines that must be followed when this designation applies.

- *Mixed-Use Overlay.* This land use designation is very site specific and applies only to those areas included with the *Commercial General* land use designations. The designation permits residential development to be constructed in areas with this land use designation. The residential units may either share the structure or parcel. The development density cannot exceed 22 units per acre and all applicable parking standards must be met. This designation is designed to promote mixed use development in and around the Peninsula Center commercial district and at the corner of Hawthorne and Crest, adjacent to Cresta Verdes (the old Gelson site).

LAND USE POLICY: PLANNING AREA 1

The Land Use Policy for this planning area calls for the maintenance of the existing residential neighborhoods that comprise the majority of the planning area. The planning area is almost exclusively developed as residential and this is reflected in the Land Use Policy which is shown in Exhibit 2-1. Overlay designations are shown in Exhibit 2-2.

Residential Development

Low Density Residential is the single residential land use designation that applies to this planning area. The residential designation corresponds to all of the areas presently developed as residential. The designation also corresponds to those areas designated as RA-20,000 (excluding the open space areas - George F. Canyon and the Palos Verdes Reservoir).

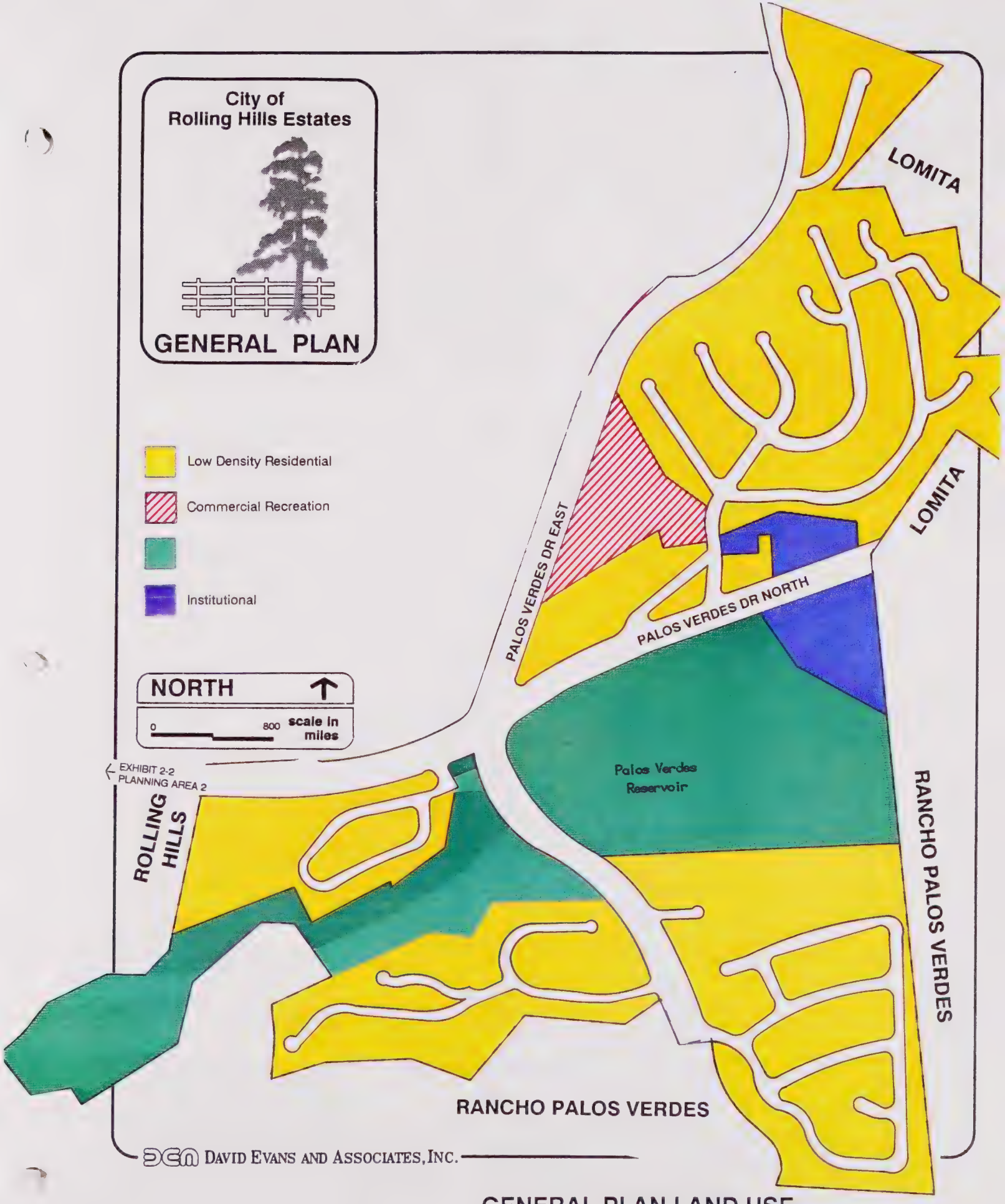
Public/Institutional

There are several *Institutional* uses along Palos Verdes Drive North near the easternmost boundary of the City. There are also three areas designated as *Open Space* including George F. Canyon, the Palos Verdes Reservoir, and a small City-owned property at the southwest corner of Palos Verdes Drive North and Palos Verdes Drive East.

Overlay Designations

The following overlay designations apply to this planning area:

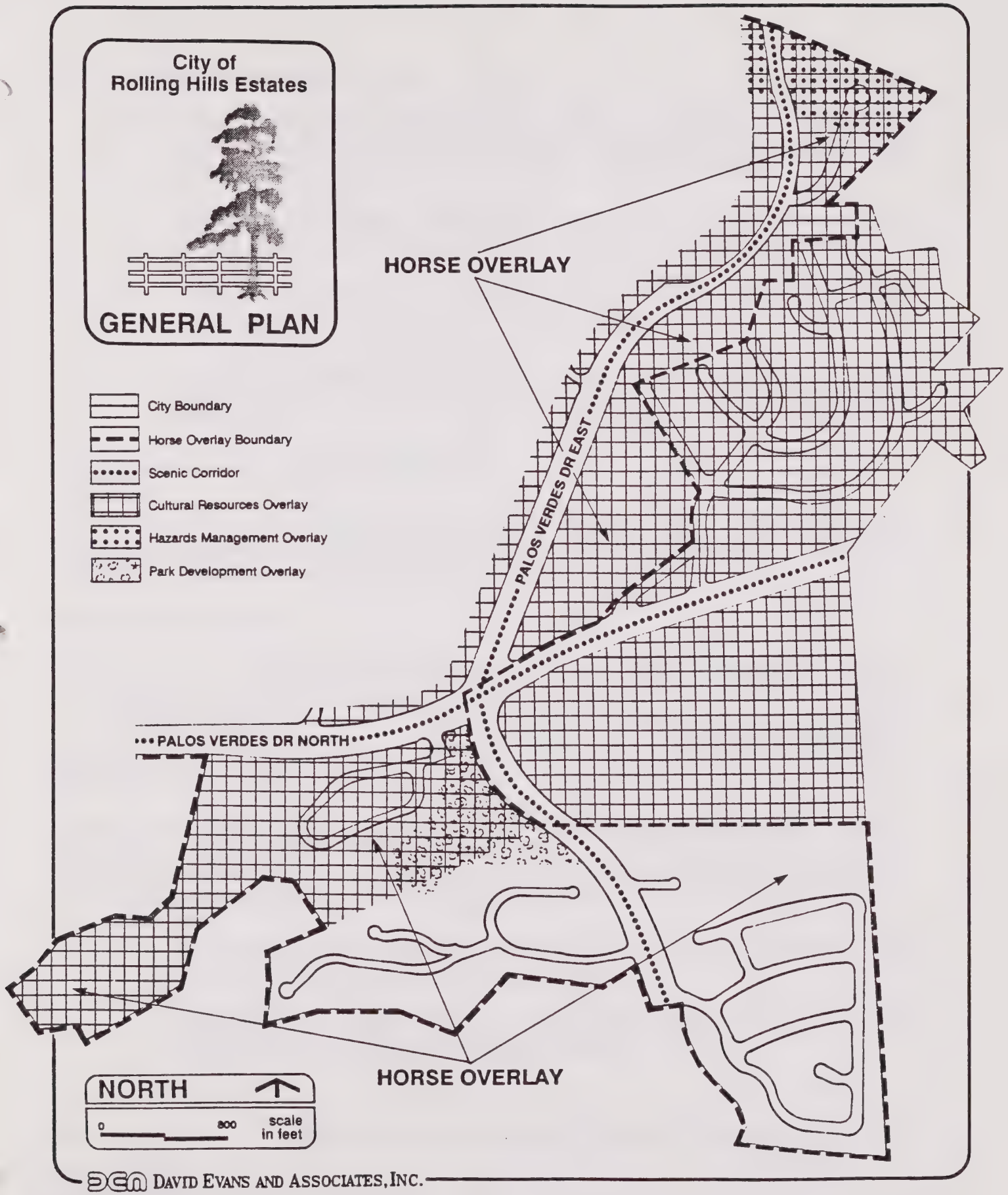
- *Cultural Resources Overlay.* This designation applies to the majority of the planning area.



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GENERAL PLAN LAND USE
PLANNING AREA 1

Exhibit 2-1



OVERLAY MAP
PLANNING AREA 1

Exhibit 2-2

- *Horse Overlay.* This designation applies to the majority of the planning area with the exception of a portion of the residential neighborhood located north of Palos Verdes Drive North commonly known as Monticello.

- *Scenic Corridor Overlay.* Palos Verdes Drive North and Palos Verdes Drive East have been included within the Scenic Corridor Overlay.

- *Parks Development Overlay.* This designation applies to the site designated as Open Space at the mouth of George F. Canyon.

- *Hazards Management Overlay.* This overlay designation applies to the northernmost portion of the planning area where it is traversed by the Palos Verdes Fault.

LAND USE POLICY: PLANNING AREA 2

The Land Use Policy for this planning area calls for the maintenance of existing land uses in areas that are presently developed. The Land Use Plan for planning area 2 is shown in Exhibit 2-3. Overlay zones are shown in Exhibit 2-4.

Residential Development

The majority of the existing residential neighborhoods north of Palos Verdes Drive North are designated as *Low Density Residential* which correspond to the existing land use and zoning for these neighborhoods. The residential neighborhood served by Strawberry Lane is designated as *Very Low Density Residential* which also corresponds to both existing development and zoning.

Portions of the Chandler Trust Property not presently included in the Rolling Hills Country Club and the northern half of Chandler Quarry have been designated for *Very Low Density Residential Development* with a density not to exceed 1 unit per 5 acres. In addition, the following development policies have been adopted for the future reuse of Chandler Quarry:

- A *Cultural Overlay* should be designated on the property to protect any cultural resources that may be present on the site.

- Maintain the existing golf course (the course should be designated as *Commercial Recreation* in the General Plan).

- The certified compacted portion of the quarry should be designated as *Very Low Density Residential* with a maximum density of 1 unit per acre with an "H" Overlay.

- Maintain the historic Empty Saddle Club and General Store uses.

- The portions of the site that are uncertified fill should be reserved for *Commercial Recreation* as an extension of the existing golf course.

- The undeveloped portions of the landfill next to the water company property should be designated in such a way to promote affordable housing.

- Palos Verdes Drive East could be straightened with a parkland buffer between PVDE and the Bridlewood neighborhood.

Commercial

A parcel located on the southwest corner of the intersection of Crenshaw Boulevard and Palos Verdes Drive North has been designated as *Commercial Office* which corresponds to the existing land uses. The General Plan Land Use Policy provides for the continuation of the Rolling Hills Country Club with the *Commercial Recreation* designation. Any change from the present use will require a General Plan amendment.

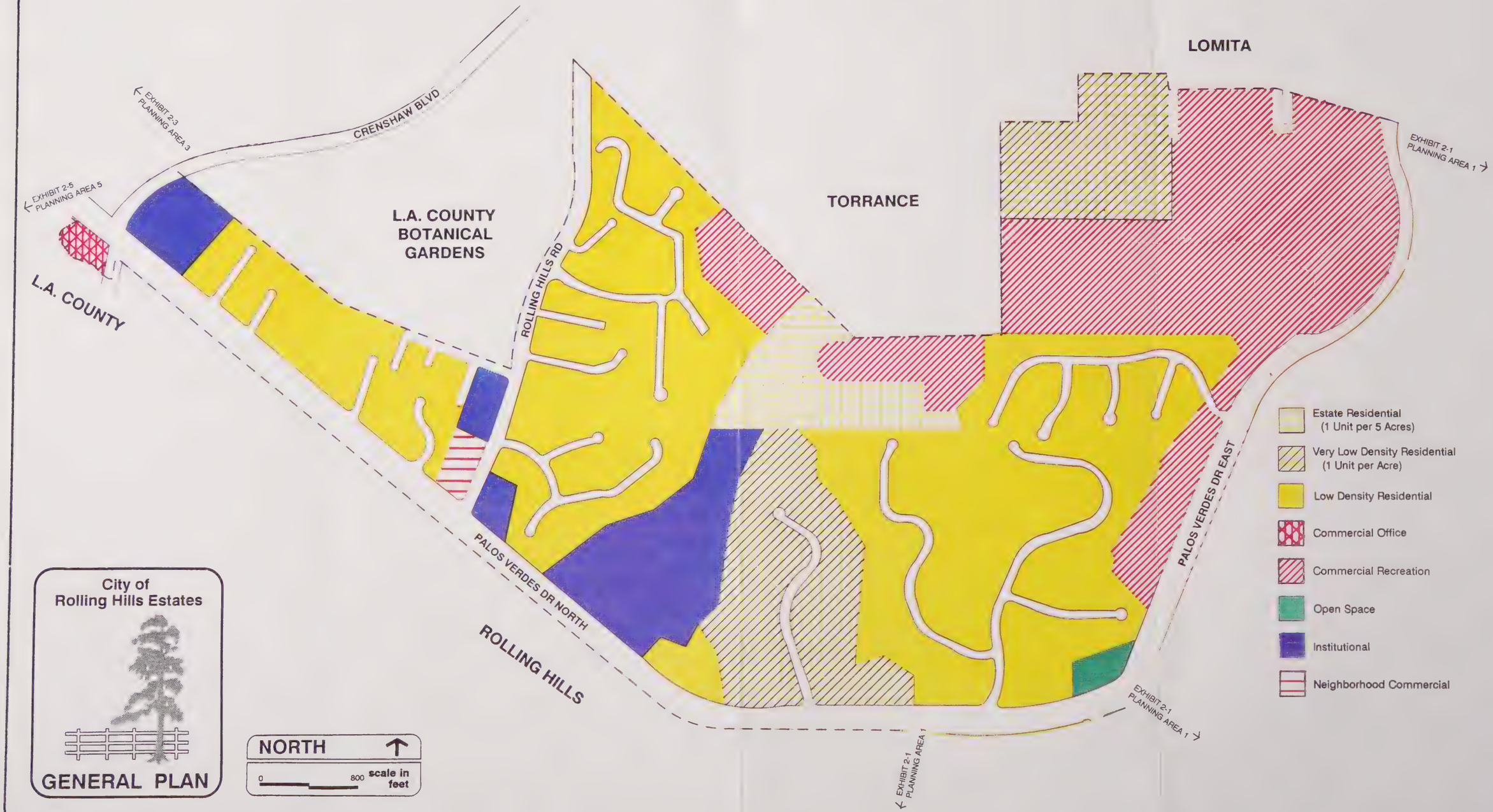
Public/Institutional

There are a number of public and institutional uses within the planning area that are recognized under the existing Land Use Policy. A number of churches and private schools have been designated as *Institutional* which is consistent with the present zone district designation. The General Plan also provides for the continuation of the Dapplegray School site as *Institutional*. Finally, Dapplegray Park has been designated as *Open Space*.

Overlay Designations

The following overlay designations apply to this planning area:

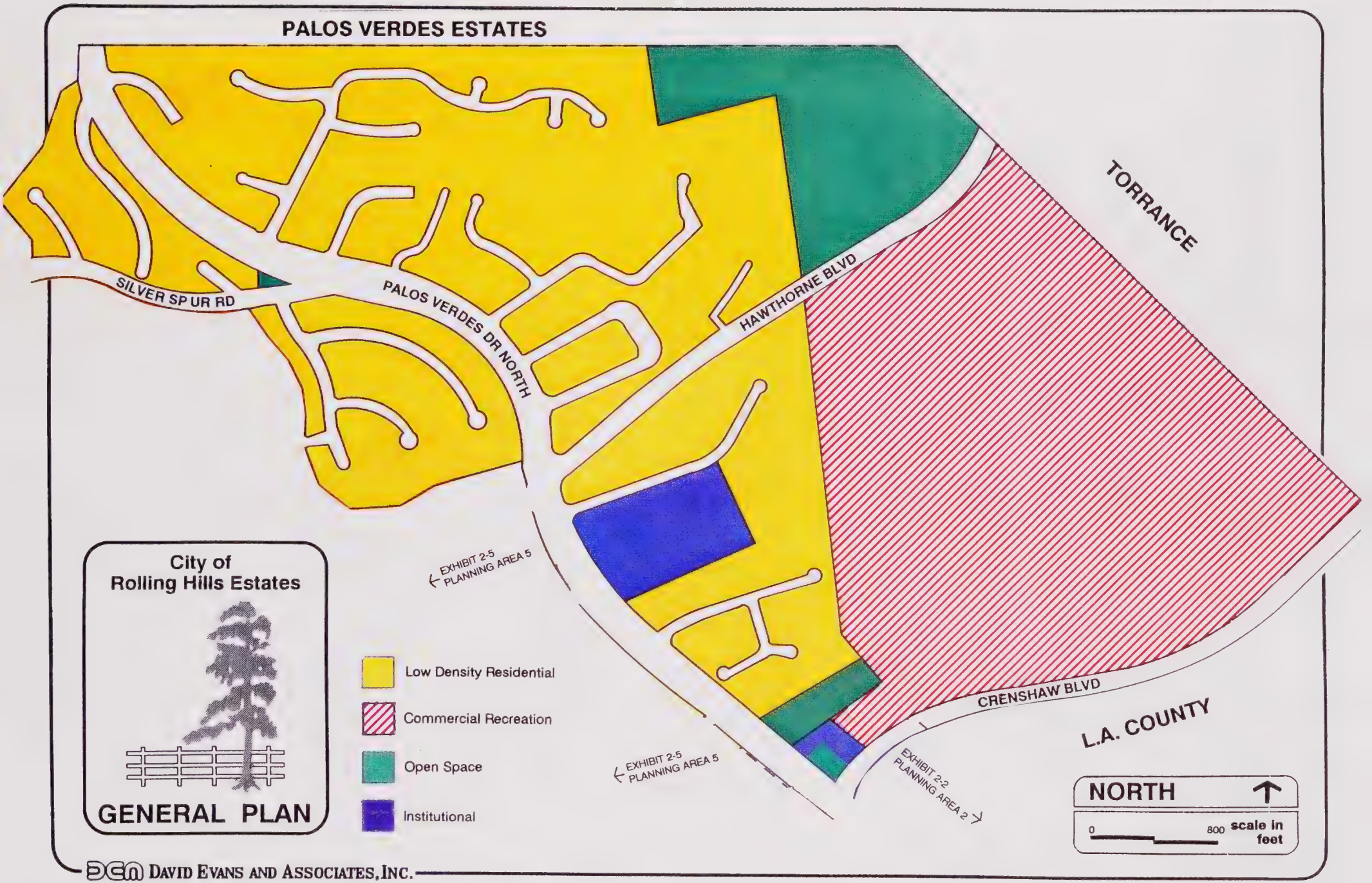
- *Cultural Resources Overlay*. This designation applies to those portions of Chandler Quarry that have not been disturbed by past grading and excavation. In addition, this overlay applies to the Empty Saddle Club and the corner of



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GENERAL PLAN LAND USE
PLANNING AREA 2

Exhibit 2-3



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GENERAL PLAN LAND USE
PLANNING AREA 3

Exhibit 2-5

Palos Verdes Drive North and Rolling Hills Road in order to preserve these historic landmarks.

- *Horse Overlay.* This designation applies to the entire planning area with the exception of the residential neighborhood along Club View Lane.

- *Scenic Corridor Overlay.* Palos Verdes Drive North has been included within the *Scenic Corridor Overlay.*

- *Parks Development Overlay.* This overlay designation is applied to property currently being used for recreation uses.

- *Hazards Management Overlay.* This overlay designation applies to the northernmost portion of the planning area where it is traversed by the Palos Verdes Fault.

LAND USE POLICY: PLANNING AREA 3

This planning area is the geographic center of the City. The Land Use Policy for this planning area calls for the maintenance of existing land uses in areas that are presently developed. In addition, the Land Use Policy promotes the long-term reuse of the Palos Verdes Landfill for *commercial recreation.* The Land Use Policy for planning area 3 is depicted in Exhibit 2-5. Overlay zones are shown in Exhibit 2-6.

Residential Development

All of the residential neighborhoods in this planning area are designated as *Low Density Residential* which corresponds to the existing land use and zoning for these neighborhoods. This designation reflects the City's commitment to the preservation of these neighborhoods. The corresponding zone district for this land use designation is the RA-20,000.

Commercial

The Palos Verdes Landfill has been designated as *Commercial Recreation* in this General Plan. This designation is consistent with ongoing proposals which are being evaluated by the Los Angeles County Sanitation District. However, the City has established a number of guidelines which must be adhered to when the landfill is ultimately redeveloped for *Commercial Recreation.* The guidelines include the following:

- Portions of the Landfill will be improved as a golf course (9 to 18 hole).
- The new equestrian facility could be located within the site.
- Multi-use trails will be provided within and around the site.
- Landscaping and design treatments along Crenshaw and Hawthorne Boulevards must be retained.
- Methane gas will continue to be monitored and collected over the life of the development.
- The City and the Los Angeles County Sanitation Districts will cooperate in future planning efforts.

Public/Institutional

This planning area contains a number of public and institutional uses. Three parks (Ernie J. Howlett Park, Chandler Park, and Silver Spur Park) have all been designated as *Open Space*. Other *Institutional* uses within the planning area that are recognized under the existing Land Use Policy include the City Hall and one school.

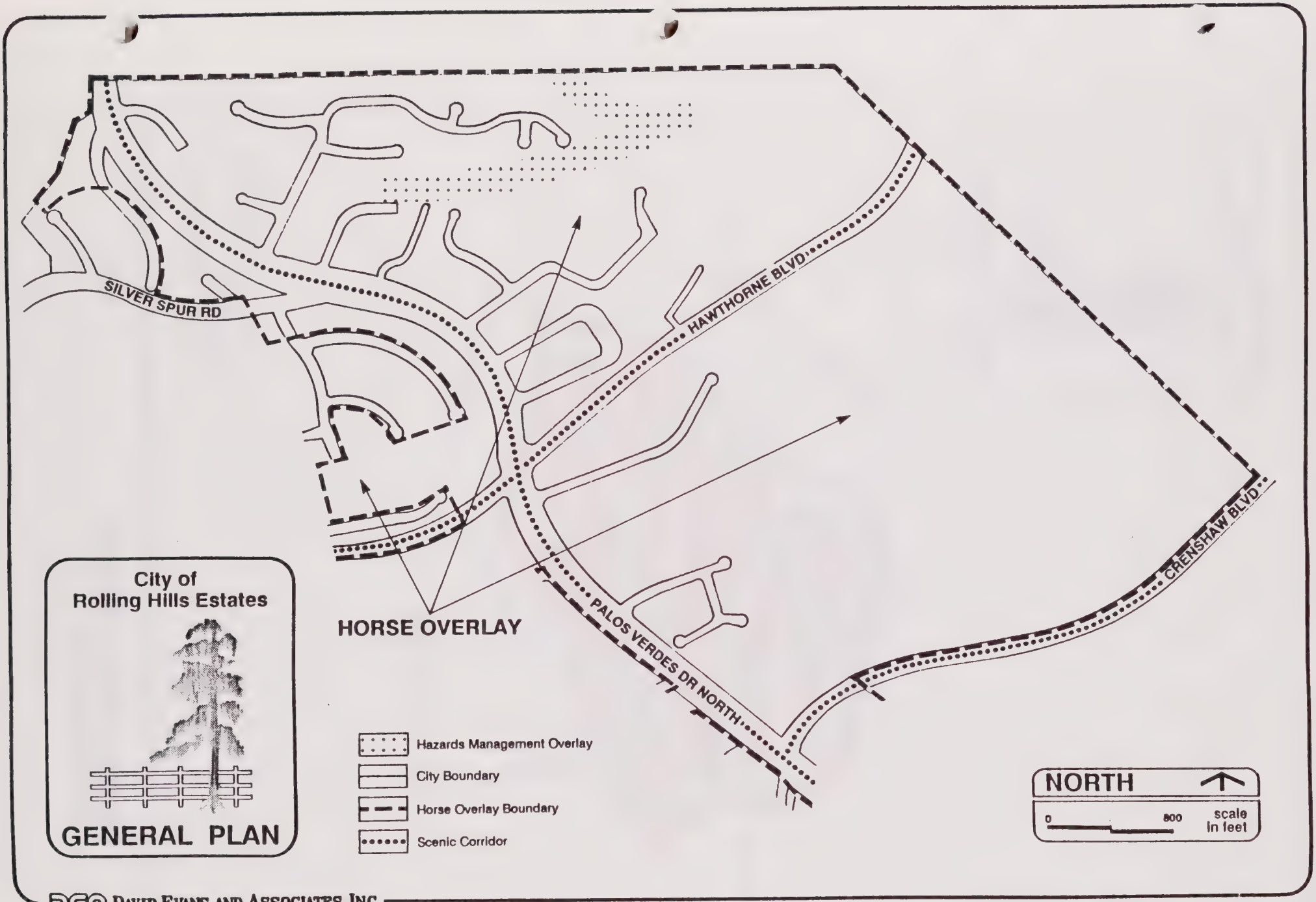
Overlay Designations

The following overlay designations apply to this planning area:

- *Horse Overlay.* This designation applies to the entire planning area with the exception of a portion of the residential neighborhood along Marina and Rollando Drives.
- *Scenic Corridor Overlay.* Palos Verdes Drive North, Crenshaw Boulevard, and Hawthorne Boulevard have been included within the *Scenic Corridor Overlay*.

LAND USE POLICY: PLANNING AREA 4

Planning area 4 is the smallest of the seven planning areas in terms of size. The entire planning area has been designated as *Medium Density Residential*. The rationale for this designation is to conserve the existing housing stock in the community. The *Medium Density*



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OVERLAY MAP
PLANNING AREA 3

Exhibit 2-6

City of
Rolling Hills Estates

GENERAL PLAN



NORTH

0 800 scale in feet

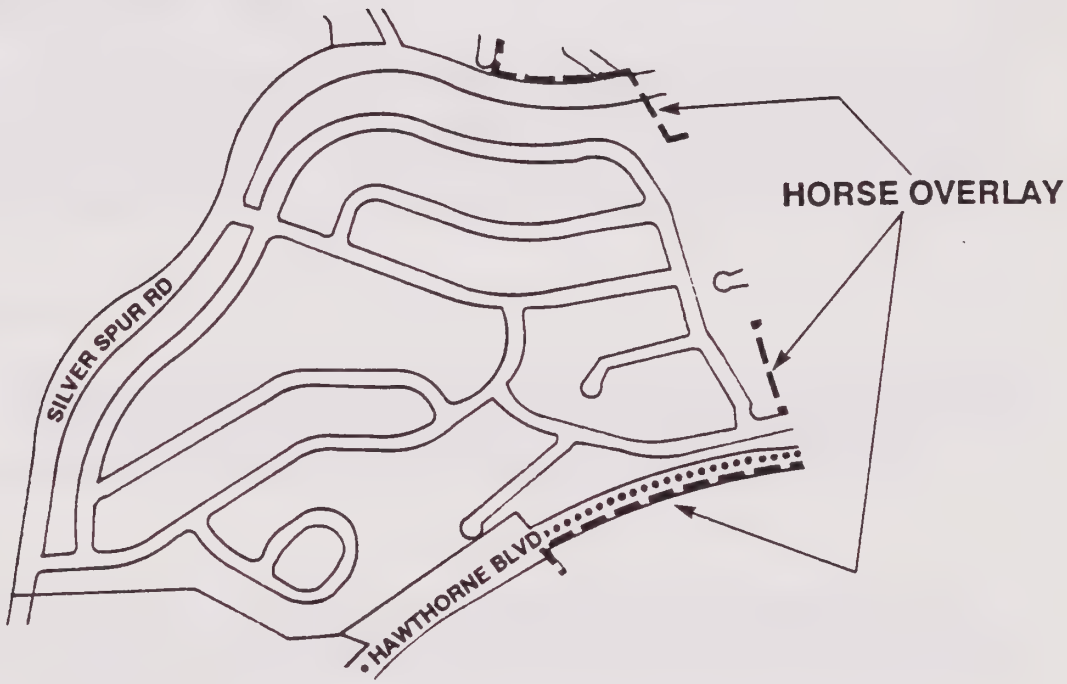
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GENERAL PLAN LAND USE
PLANNING AREA 4

Exhibit 2-7

City of
Rolling Hills Estates

GENERAL PLAN



NORTH

0 800 scale in feet

City Boundary

Horse Overlay Boundary

Scenic Corridor

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OVERLAY MAP
PLANNING AREA 4

Exhibit 2-8

Residential designation corresponds to the RA-10,000 zone district. The Land Use Policy for planning area 4 is shown in Exhibit 2-7. Overlay zones are shown in Exhibit 2-8.

Overlay Designations

The following overlay designation applies to this planning area:

- *Scenic Corridor Overlay.* Hawthorne Boulevard has been included within the *Scenic Corridor Overlay.*

LAND USE POLICY: PLANNING AREA 5

The Land Use Policy for this planning area calls for the maintenance and preservation of existing land uses. The entire planning area is completely developed and, as a result, the Land Use Element's focus is to preserve and maintain the existing neighborhoods. The Land Use Plan for this planning area is shown in Exhibit 2-9 and overlay zones are shown in Exhibit 2-10.

Residential Development

The existing residential neighborhoods in the planning area are designated as either *Low Density Residential* or *Medium Density Residential.* The former applies to those areas with a RA-20,000 zone designation and the latter applies to the areas zoned RA-10,000.

Commercial

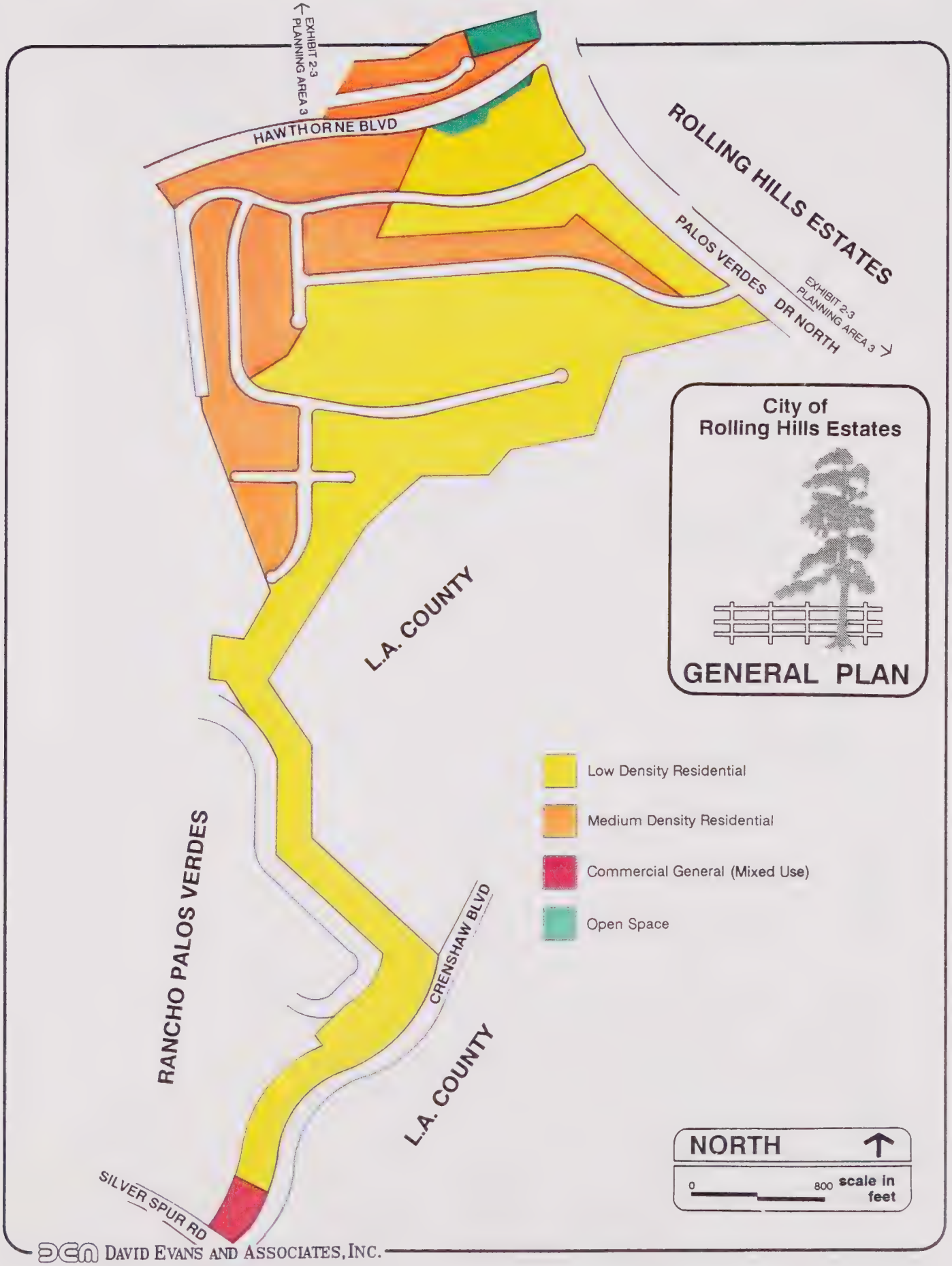
A parcel located on the northwest corner of the intersection of Crenshaw Boulevard and Silver Spur Road has been designated as *Commercial General.* The corresponding zone district for this land use designation is C-G.

Public/Institutional

There are two areas designated as *Open Space* within this planning area: Rockbluff Park and a landscaped *Open Space* parcel along Hawthorne Boulevard south of Palos Verdes Drive North.

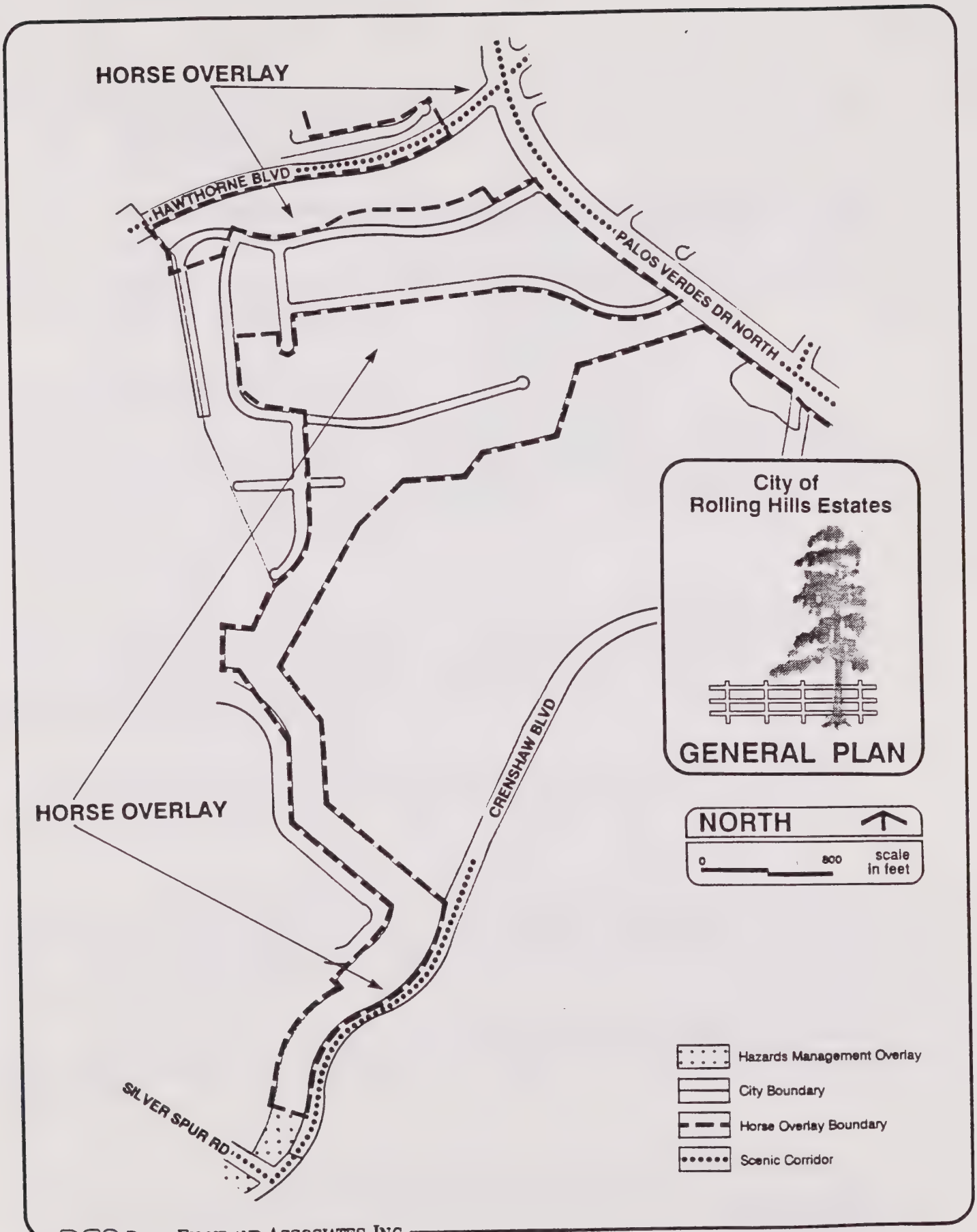
Overlay Designations

The following overlay designations apply to this planning area:



GENERAL PLAN LAND USE
PLANNING AREA 5

Exhibit 2-9



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OVERLAY MAP
PLANNING AREA 5

Exhibit 2-10

- ***Horse Overlay.*** This designation applies to the majority of the planning area designated as Low Density.

- ***Scenic Corridor Overlay.*** Palos Verdes Drive North, Crenshaw Boulevard, and Hawthorne Boulevard have been included within the *Scenic Corridor Overlay*.

- ***Multi-Use Trails Overlay*** A number of trails are identified in the Trails Master Plan for the planning area.

LAND USE POLICY: PLANNING AREA 6

This planning area contains the greatest variety of land uses compared to the other planning areas. The Land Use Policy provides for the conservation of the existing housing and retail commercial uses in the Peninsula Center. The Land Use Plan for planning area 6 is shown in Exhibit 2-11 and overlays are shown in Exhibit 2-12.

Residential Development

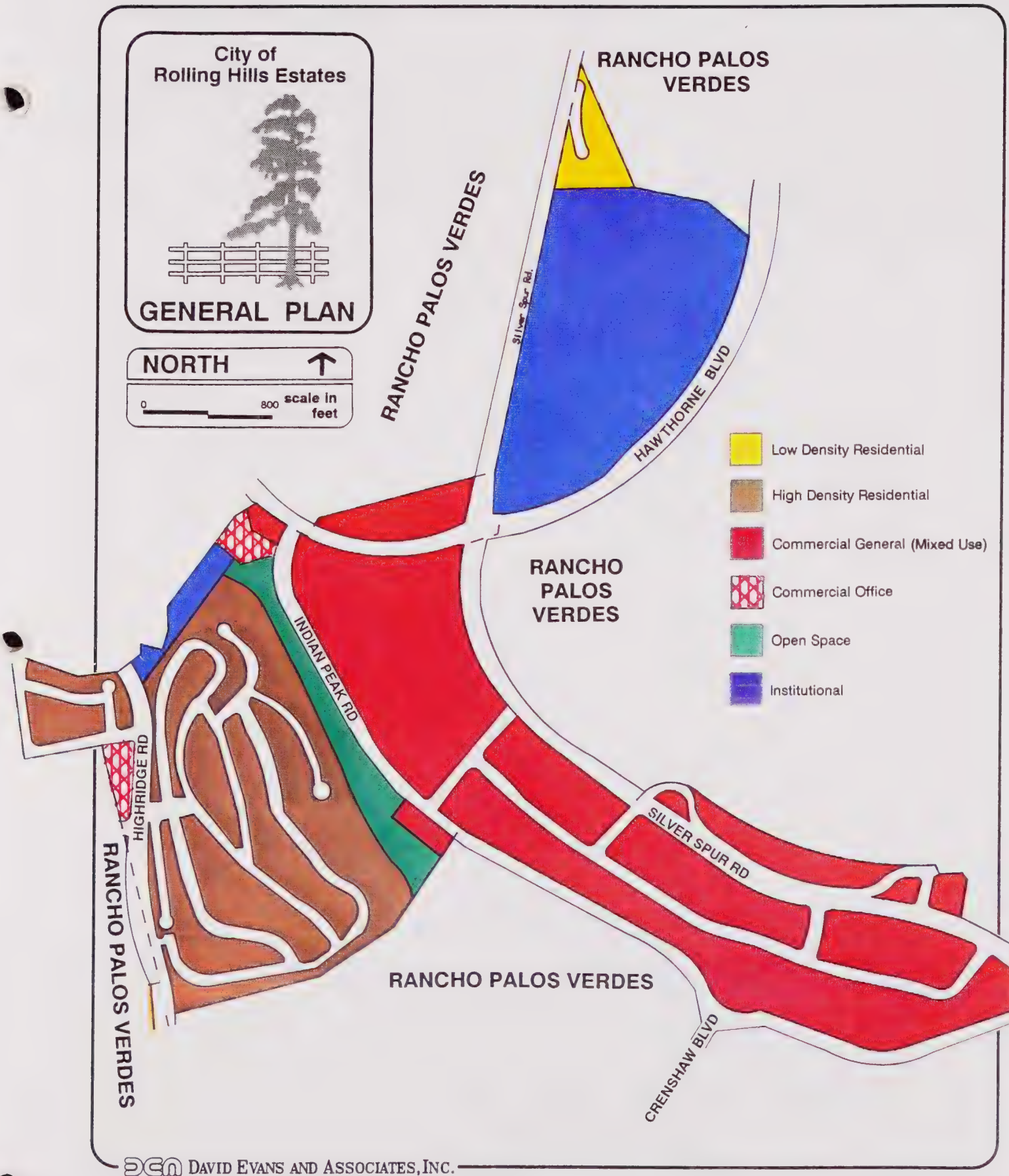
The majority of the existing residential development within the planning area is designated as *High Density Residential*. This designation applies to all of the residential development along both sides of Highridge Road (east of Indian Peak Road). The area designated as *High Density Residential* corresponds to those areas designated as *RPD* (Residential Planned Development) in the Zoning Ordinance.

A small area in the northernmost portion of the planning area is designated as *Low Density Residential* which also corresponds both existing development and zoning.

Commercial

The greatest concentration of commercial development in the City is found in this planning area. The Peninsula Center has been designated as *Commercial General* which corresponds to the C-G zone district. This land use designation underscores the City's commitment to retaining the only major commercial center in the City.

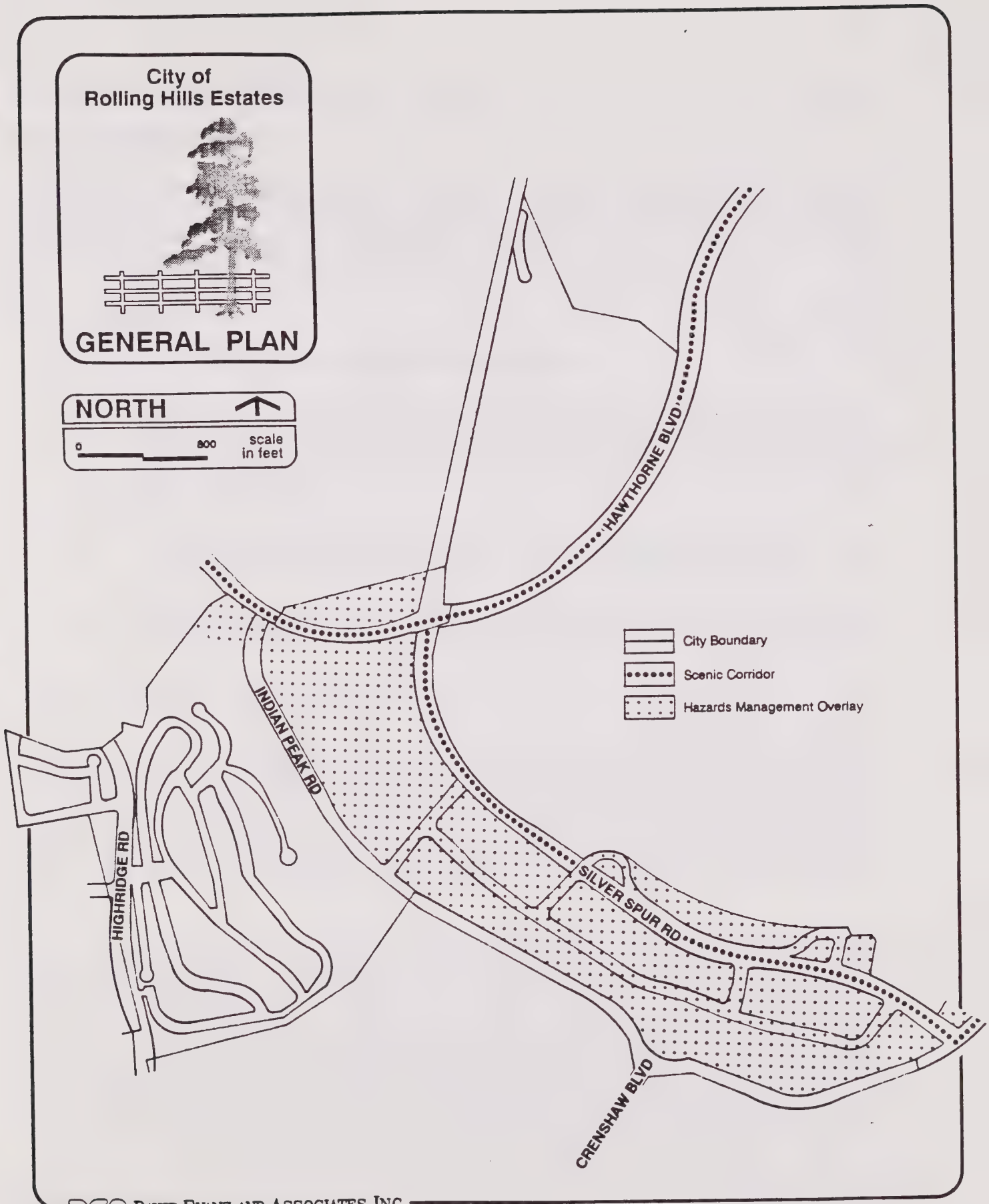
A smaller parcel located south of Hawthorne Boulevard and west of Indian Peak Road has been designated as *Commercial Office* which corresponds to both the existing land use and zoning (CO).



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GENERAL PLAN LAND USE
PLANNING AREA 6

Exhibit 2-11



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OVERLAY MAP
PLANNING AREA 6

Exhibit 2-12

Public/Institutional

There are a number of public and institutional uses within the planning area that are recognized by the General Plan's Land Use Policy. The primary institutional land use in the planning area is Rolling Hills High School. A number of other uses are located within the Commercial District including the library, post office, and a fire station.

Overlay Designations

The following overlay designations apply to this planning area:

- *Mixed-Use Development Overlay.* All of those areas designated for *Commercial General* have been designated for a *Mixed-Use Overlay*. This designation will permit residential uses to be located above or adjacent to commercial retail and office uses.

- *Hazards Management Overlay.* This overlay designation applies to the central portion of the planning area which is traversed by the Cabrillo Fault.

- *Scenic Corridor Overlay.* Hawthorne Boulevard, Crenshaw Boulevard, and Silver Spur Road are designated *Scenic Corridors* within this planning area.

LAND USE POLICY: PLANNING AREA 7

The Land Use Policy for this planning area calls for the conservation of existing residential uses in the area while providing for the future redevelopment of the Northrop property. The planning area will continue to remain largely residential though two parcels have been designated as *Neighborhood Commercial* in recognition of the existing uses and zoning. Another important land use in the Planning Area includes Highridge Park. The Land Use Plan for this planning area is shown in Exhibit 2-13 and overlay zones are shown in Exhibit 2-14.

The City of Rolling Hills Estates and the Northrop Corporation entered into a development agreement in November, 1983. The development agreement permits the property owner to construct an additional 175,000 square feet of leasable floor area and to replace one or more of the existing buildings as long as the total gross leasable floor area of both existing and new structures does not exceed 297,000 square feet. No single structure can exceed 150,000 square feet of gross leasable floor area. The development agreement also outlines certain standards that must be adhered to including parking requirements, setbacks, and number of employees. The terms of the development agreement are transferable if the

property is sold. The agreement will terminate on November 26th, 2003. The development agreement will supersede this general plan and zoning as long as it applies.

Residential Development

The majority of the planning area has been designated as *Low Density Residential* which corresponds to the existing land use. Three noncontiguous areas are designated as *High Density Residential* which corresponds to the existing density of development. In addition, all three areas are zoned RPD. Three other areas, one located adjacent to Indian Valley Road and two adjacent to Highridge Road are designated as *Medium Density Residential.* Two of these areas are zoned RA-10,000 and a third is zoned RPD.

The land use plan for this planning area provides for the eventual reuse of the Northrop property. The entire site has been designated as *Low Density Residential (2/units/acre)* in the General Plan. In addition to the land use designation, the General Plan provides for the following development guidelines which are meant to be an aid in future planning.

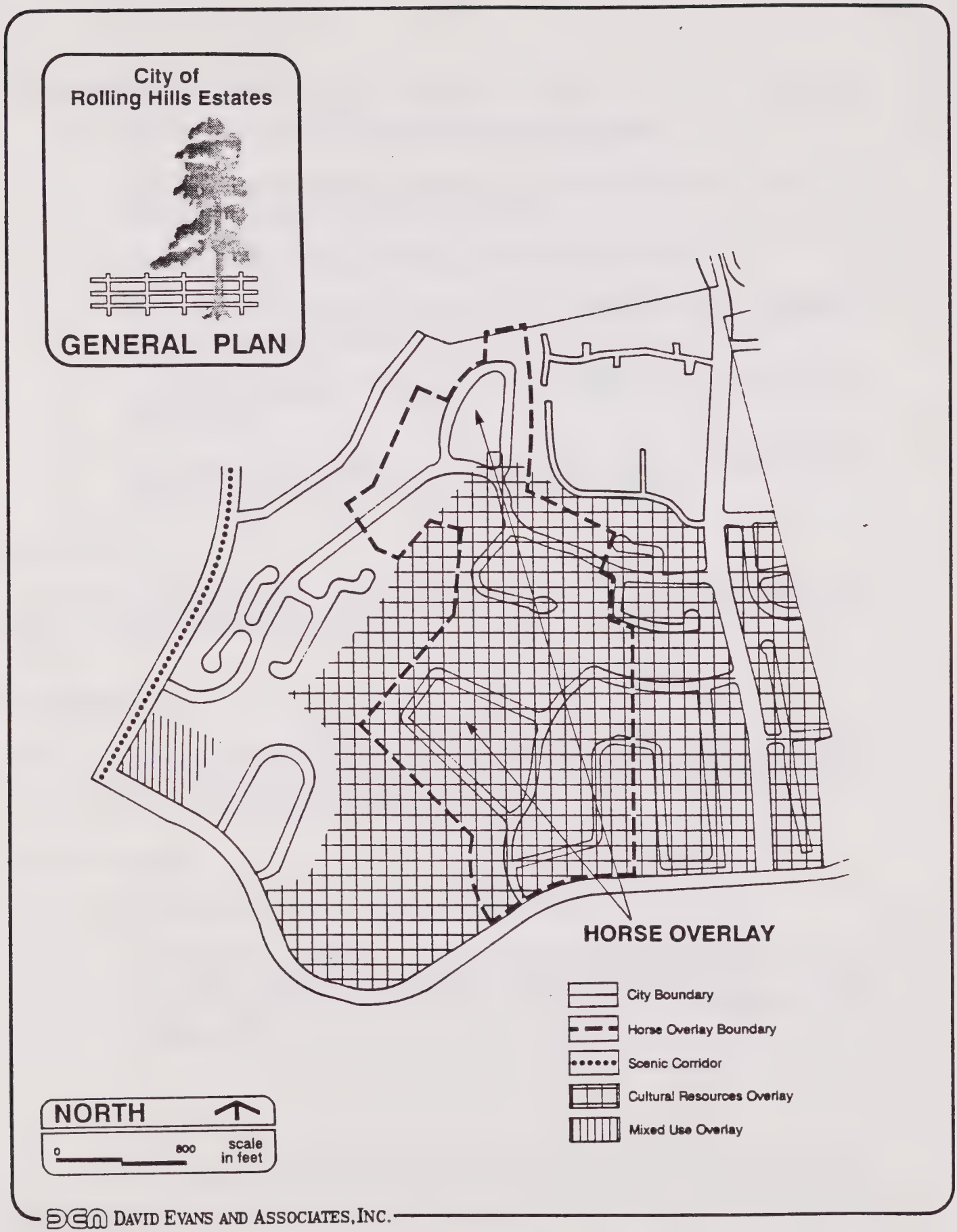
- The project site is designated as *Low Density Residential (2 units/acre)* in the General Plan.
- The development envisioned for the property will maximize open space.
- Existing mature trees on the property will be retained as much as this is possible. A one-to-one replacement of mature trees should be adhered to.
- The periphery will be left open for a multi-use trail and/or landscaped open space.
- The project will be compatible with surrounding development and comply with neighborhood compatibility guidelines.
- Housing units adjacent to the periphery will be single story.
- Development will be sensitive to the local topography and grading should be kept to a minimum. Development should be concentrated in those areas that are level.
- The residential units will not exceed the height limitations established by City code (27 feet).



DAVID EVANS AND ASSOCIATES, INC.

GENERAL PLAN LAND USE
PLANNING AREA 7

Exhibit 2-13



DAVID EVANS AND ASSOCIATES, INC.

OVERLAY MAP
PLANNING AREA 7

Exhibit 2-14

- Primary access to the property will be from Crest Road.
- Open space areas within the property will be interconnected and connections with adjacent open space should be provided.
- A variety in the density of housing units will be considered.
- Existing ocean views from the adjacent Ranch properties will be maintained through the use of open space.
- Landscaped open space will account for a least 30% of the total acreage of the property.
- The project shall include a floating overlay zone for properties at periphery/potential for equestrian lots adjacent to trails.

Commercial

Two parcels located adjacent to Crest Road have been designated as *Neighborhood Commercial* which corresponds to the existing land uses and the CL (Commercial-Limited) zoning.

Public/Institutional

There are three areas designated for *Open Space* in this General Plan. Two of these areas are privately owned open space that have been set aside as conditions of development. A third area designated as *Open Space* is Highridge Park.

Overlay Designations

The following overlay designations apply to this planning area:

- ***Cultural Resources Overlay.*** This designation applies to an area designated as *Open Space* (located along Highridge Road) in the General Plan. This site was left *Open Space* as a means of "capping" an important archaeological site underneath.

- ***Horse Overlay.*** This designation applies to the central portion of the planning area. All of the area included within this overlay is designated as *Low Density Residential.*

- ***Scenic Corridor Overlay.*** Hawthorne Boulevard has been included within the *Scenic Corridor Overlay.*

- ***Mixed Use Overlay.*** The northeast corner of Hawthorne Boulevard and Crest Road has been designated for mixed use. This designation will permit either residential development or the retention of the existing commercial uses. This residential development may include either housing for senior citizens (including Section 202 Housing) and market rate housing.

Neighborhood Compatibility Guidelines

The City, through its Neighborhood Compatibility Ordinance, has established design criteria and a review process to protect and preserve the character of all residential neighborhoods in the City. The Compatibility Ordinance considers the following factors:

- ***Natural Amenities.*** Improvements to residential property shall respect and preserve, to the greatest extent possible, existing topography, landscaping and natural features.

- ***Neighborhood Character.*** Proposals will be compatible with the existing neighborhood character in terms of architectural style and materials, and the scale of development in relation to surrounding residences. The open space and rural character of the surrounding neighborhood shall be preserved.

- ***Scale.*** While many elements can contribute to the scale of a residential structure, designs will minimize the appearance of overbuilt property to both public and private view. The square footage of the residence and the total amount of lot coverage should reflect the rural character of the City and the respective neighborhood.

- ***Style.*** Proposals shall address certain design elements to ensure the compatibility of development. These elements include

facade treatments, structure height, setbacks, roof design, building bulk, and architectural style.

- ***Privacy.*** Proposed development shall be designed to preserve the privacy from adjacent residences.

- ***Landscaping.*** Designs shall incorporate existing and additional landscaping to ensure compatibility with the surrounding neighborhood. Landscaping shall not be used to create hedges in front yard areas nor diminish the open, spacious character of a neighborhood.

- ***Views.*** Development will be designed with respect for neighboring views as required by the View Protection Ordinance, Section 1950.

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SECTION 2.4
BACKGROUND REPORT

INTRODUCTION TO THE BACKGROUND REPORT

The Land Use Element Background Report provides a discussion of the issues and opportunities in Rolling Hills Estates that affect land use planning in the City. This section contains information concerning the location and distribution of existing land uses, a description of development characteristics, and land use trends. Finally, development constraints that affect existing and future development are evaluated.

DEVELOPMENT TRENDS

The City of Rolling Hills Estates is located in the southwestern portion of Los Angeles County, 23 miles southwest of downtown Los Angeles and 2 miles east of the Pacific Ocean. The City is part of the Palos Verdes Peninsula which consists of the cities of Palos Verdes Estates, Rolling Hills, Rolling Hills Estates and Rancho Palos Verdes (refer to Exhibit 1-2). The Peninsula enjoys a favorable climate and is readily accessible to beaches and major employment centers.

Rolling Hills Estates was incorporated on September 18, 1957 to preserve and protect its rural community character. In 1959, the Montecillo area, Chandler Quarry, Country Club Estates and northern Masongate areas were annexed to the City. Later annexations included land adjacent to the Northrop Corporation, the Rolling Hills High School site, the Larga Vista area, the Peninsula Shopping Center, Harbor Sight Ranch, Rolling Hills Park Estates, Highridge Terraces, and Cresta Verde areas. In 1982, the site of the former Palos Verdes Landfill on Crenshaw Boulevard was annexed to the City.

According to the Los Angeles County Local Agency Formation Commission, two County areas are within the City's designated sphere of influence. These areas, shown in Exhibit 2-8 include the South Coast Botanic Gardens and the unincorporated County lands adjacent to Crenshaw Boulevard. The sphere of influence refers to those unincorporated areas that may be annexed into the City at some future point in time.

The City has experienced slow growth over the past decade both in terms of development and population. The 1980 population of 7,701 persons increased to 7,789 persons in 1990, a growth of 88 persons, or 1.14 percent, in ten years. Compared to Los Angeles County, which grew 17.28 percent in the same period, the population of the City has been fairly stable. Most of the City's growth was due to an increase in housing units.

The City reached a maximum population of 7,923 persons in 1988. Since then, its population has been decreasing. The City had 7,789 according to the 1990 Census, which is 65 persons less than the 1985 estimated population of 7,854 persons. The population decrease can be attributed to the decrease in household size, a reflection of an aging population with children who are leaving home. Table 2-3 shows historical population and housing growth in the City. Population and housing characteristics are discussed in greater detail in the Housing Element Background Report.

TABLE 2-3
POPULATION AND HOUSING GROWTH

Year	Population	Housing
1957	2,419	--
1960	3,941	1,005
1964	5,140	--
1970	6,027	1,571
1980	7,701	2,613
1983	7,744	2,705
1985	7,854	2,721
1988	7,923	2,726
1990	7,789	2,873

Source: U.S. Census 1960, 1970, 1980, 1990; California Department of Finance Population and Housing Estimates.

With the City almost completely urbanized, there have been very few new developments. A number of parcels have been redeveloped and newer single-family houses have replaced older single-family houses. Expansion of individual units is the most common form of building activity. Recent major development in the City includes residential development along Highridge Road in the southwestern section of the City.

CHARACTERISTICS OF EXISTING DEVELOPMENT

The City of Rolling Hills Estates covers an irregular area of approximately 4.18 square miles on the central and northeastern sections of the Palos Verdes Peninsula. The City is bounded on the north by the cities of Torrance and Palos Verdes Estates, on the east by Lomita, unincorporated areas of Los Angeles County and Rolling Hills, and on the south and west by Rancho Palos Verdes.

The City includes a portion of the Palos Verdes Hills. The highest point in the City, at an elevation of 1,200 feet above sea level, is in the southwestern section of the City, near the intersection of Crest Road and Highridge Road. The majority of the City is located on the north and northeast-facing slopes of the hills. The land features rough terrain with canyons, winding roads, and lush vegetation. Slopes range from 7 to 25 percent with the steepest slopes near Silver Spur and Indian Peak Roads. Steep slopes, within urbanized areas, have remained undeveloped.

A network of equestrian trails and equestrian facilities provide a major recreational resource for residents. Developed areas are predominantly low density residential in nature with very few undeveloped parcels remaining in the City.

Residential Development

The City of Rolling Hills Estates is predominantly developed with single-family residential units. Approximately 1,067.8 acres or 49.1 percent of the City is developed with housing at densities ranging from 1 dwelling unit per acre to 3 units per acre. According to the 1990 Census there are 2,219 detached single-family units and 527 attached single-family units. A number of multi-family (condominium) developments, a total of 127 units, are located in the southern portion of the City. These units were all built before 1980. No new multi-family projects have been constructed since then. The newest residential development, slated for completion in 1992, is located in the Highridge area and will contain seventy-two single-family units.

The majority of the housing stock was built between 1960 and 1980. Although these dwelling units are 10 to 30 years old, they are very well-maintained.

Commercial Development

Commercial and retail uses in the City include the 93.4-acre Peninsula Center, the Academy Center, retail stores on the corner of Crest and Hawthorne, the retail store on the northeast corner of Crest and Highridge, and real estate offices on Palos Verdes Drive East. The Peninsula Center area is located in a small valley on Silver Spur and Deep Valley Roads, between Crenshaw and Hawthorne Boulevards. Peninsula Center includes the Peninsula Shopping Center, the Shops at Palos Verdes, The Village, Town and Country, and a number of other commercial uses.

There are approximately 200 retail establishments in the City consisting of apparel stores, gasoline stations, grocery stores, food stores, restaurants, and home furnishing stores, among others. Also, there are a number of banks, professional, medical, and business offices,

theaters, and a host of services in the City. Most office uses serve the local professional services market as opposed to being regional offices. The majority of these commercial uses are located in the Peninsula Center area. A unique commercial use at the northwest corner of Palos Verdes Drive North and Rolling Hills Road has been preserved for future generations as a landmark overlay. Commercial land uses cover approximately 107.6 acres or 4.7 percent of the City.

Industrial Development

The City has a limited amount of land devoted to industrial uses. The Northrop Corporation owns a 34.9-acre research and development facility on Crest Road on the southern edge of the City. The site was developed as an electronic research facility for the aerospace industry. Concrete manufacturing activities occur on an isolated section of the Chandler Quarry site. Landfill operations, the primary function of the Chandler site, have started to fill up the old quarry pits.

Parks and Recreational Facilities

The City owns and maintains a number of parks and recreation facilities. In addition, a network of equestrian trails and bicycle routes exists throughout the City. Private recreational facilities in the City include a golf course, riding clubs and a tennis club. The Open Space and Recreation Background Report discusses parks and recreational facilities in more detail. Existing parks and recreation areas cover approximately 177.7 acres of parks and 25 miles of trails, accounting for 7.8 percent of the City's land area. Open space areas left undeveloped within residential projects cover 32.6 acres.

Schools

The Palos Verdes Unified School District serves the Peninsula with one elementary school (Rancho Vista), one middle school (Dapplegray closed since 1987) and one high school (Peninsula High School) located in the City. A section of Ridgecrest School on Highridge Road is also within City boundaries. Two private schools (Rolling Hills Country Day School, and Peninsula Heritage School and Rolling Hills Prep School) are also located in the City. A total of 110.8 acres are occupied by these public and private schools and their support facilities.

Institutional

Institutional uses in the City include the Civic Center, library, and churches. The Civic Center is located on the northwest corner of the intersection of Crenshaw Boulevard and Palos Verdes Drive North. The Palos Verdes Library District has a library on Deep Valley Drive between Roxcove and Drybank Roads. Churches in the City include the Rolling Hills Seventh Day Adventist Church, Rolling Hills Covenant Church, First Baptist Church of Palos Verdes, Rolling Hills United Methodist Church, and Saint Luke's Presbyterian Church. Institutional land uses account for 32.2 acres.

Public and Quasi-Public Uses

Public and quasi-public land uses in the City include the fire station, the post office, and public utility facilities (Palos Verdes Reservoir, L.A. County recycling center, Chandler landfill, two Cal-water waterworks pump stations, and the L.A. County gas-to-energy facility at the closed Palos Verdes Landfill).

Los Angeles County Fire Station #106 is on 413 Indian Peak Road at the end of Crossfield Avenue. A U.S. post office is located on Deep Valley Drive and Silver Spur Road, and a General Store-Post Office Branch is on Palos Verde Drive North and Rolling Hills Road. The Palos Verdes Reservoir, on Palos Verdes Drives North and East, is owned by the Metropolitan Water District (MWD). The reservoir has a capacity for 1,100 acre-feet of water, which MWD sells to the California Water Service Company to serve the domestic water needs of the Peninsula.

The Los Angeles County Recycling Center on Crenshaw Boulevard purchases paper, glass, aluminum, tin, and crank case oil for recycling. The closed landfill site, between Crenshaw and Hawthorne Boulevards north of Palos Verdes Drive North, is currently used for the recovery of landfill gases. There are 445 gas collection wells and trenches through which landfill gas is brought to the gas-to-energy facility on the northwest corner of the site. The facility creates electrical energy equivalent to that used by 10,000 homes. The temporary release of gases from the landfill site is necessary in order to provide for future safe use of the site.

Quarry

The Chandler Quarry landfill on the northeastern corner of the City was originally used for the mining of sand and gravel. In 1988, mining operations ceased and landfill operations were started. Concrete manufacturing operations are still ongoing on a portion of the site. The facility consists of two open pits and a batch plant on approximately 127 acres.

Streets and Highways

City streets and private roads account for 10.1 percent or 227.9 acres of the City land area. Some streets do not feature sidewalks or street lights in keeping with the rural community character which residents want to preserve.

Vacant Areas

Vacant areas in the City are limited to approximately ten vacant residential lots consisting of approximately 49.4 acres. This is 2.2 percent of the City.

Land use information was compiled from a survey of aerial photographs and field surveys. This information was mapped using the ARC-Info GIS mapping system which automatically measures the distribution of the various categories of land use.

Approximately 52.1 percent of the City is developed with residential land uses. Commercial uses cover approximately 4.7 percent and industrial land uses cover approximately 1.6 percent of the City. Table 2-4 provides a breakdown of the existing land uses shown in Exhibit 2-15.

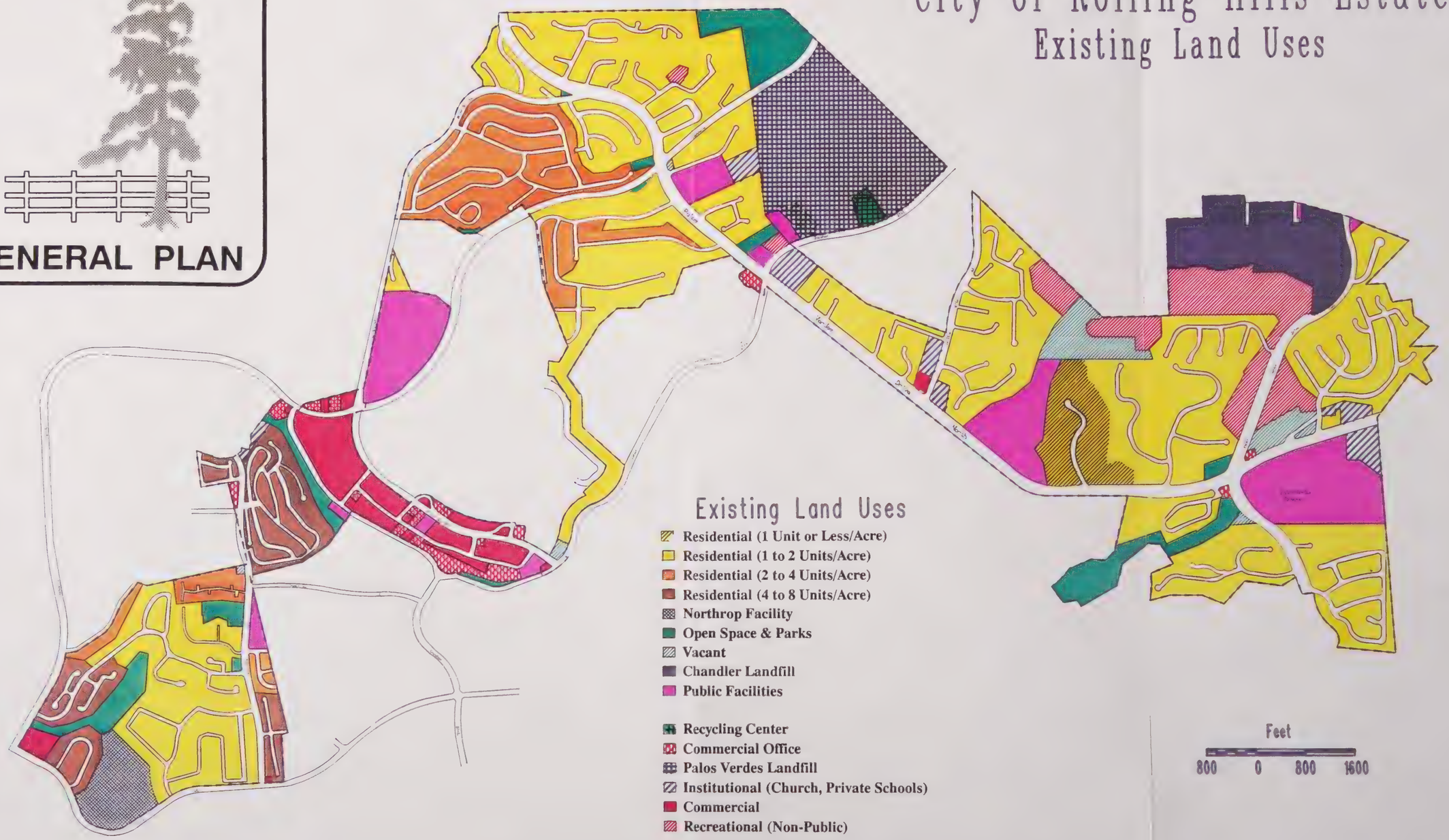
TABLE 2-4
EXISTING LAND USES

Very Low Residential	Acreage	Percent
Residential Very Low Density Residential (1 unit or less/acre)	49.4	2%
Residential Low Density Residential (more than 1 up to 2 units/acre	821.5	36%
Residential Medium Density Residential (more than 2 up to 4 units/acre	149.0	7%
Residential High Density Residential (more than 4 up to 8 units/acre	84.5	4%
Commercial	107.6	5%
Industrial	35.6	2%

City of
Rolling Hills Estates

GENERAL PLAN

City of Rolling Hills Estates
Existing Land Uses



Existing Land Uses

- Residential (1 Unit or Less/Acre)
- Residential (1 to 2 Units/Acre)
- Residential (2 to 4 Units/Acre)
- Residential (4 to 8 Units/Acre)
- Northrop Facility
- Open Space & Parks
- Vacant
- Chandler Landfill
- Public Facilities
- Recycling Center
- Commercial Office
- Palos Verdes Landfill
- Institutional (Church, Private Schools)
- Commercial
- Recreational (Non-Public)

Feet

800 0 800 1600

NOTE: This map depicts land uses as they existed at the time the map was prepared (November, 1991). The land use categories shown in this exhibit should not be confused with Exhibits 2-1 through 2-7.

TABLE 2-4 EXISTING LAND USES		
Very Low Residential	**Acreage**	**Percent**
Institutional/Public	342	15%
Open Space, Parks and Recreation Facilities (including private recreational facilities)	371	15%
Streets and Highways	227.9	10%
Vacant Areas	49.4	2%
Source: David Evans and Associates, Inc., 1990.		

DENSITY AND INTENSITY OF DEVELOPMENT

The overall density of development in the City is low and ranges from 1 to 3 units per acre. The majority of the residential neighborhoods are zoned RA-20,000 which provides for a minimum lot size of 20,000 square feet. The one area of the City where higher intensity development is found is located along Silver Spur where the Peninsula Center is located. Both higher density residential development and a regional commercial retail center are being located there.

EXISTING LAND USE PLANS

Previous General Plans

The City adopted its first General Plan in 1965. This first General Plan consisted of five elements, which together, provided long-term goals for development in the City of Rolling Hills Estates. In 1973 and 1975, the elements of the General Plan were updated and four other elements were added. Since then, subsequent amendments have been adopted for the land use, housing and safety elements.

As required by state law, the General Plan shall embody the City's goals and policies for long-term development. The current General Plan contains the seven mandatory elements, plus other elements the City deems necessary to outline its development policies. The General Plan shall supersede all other City ordinances including the zoning ordinance.

Zoning Ordinance

The Comprehensive Zoning Ordinance of the City of Rolling Hills Estates is the primary mechanism for the implementation of the General Plan land use policies. As required by State law, it is necessary for the Zoning Ordinance to be consistent with the General Plan. The existing Comprehensive Zoning Ordinance regulates all development in the City by designating areas where specific land uses are allowed and the standards that have to be observed in the establishment and operation of these land uses. A summary of each zoning district as contained in the City's Comprehensive Zoning Ordinance is presented in Table 2-5.

TABLE 2-5
ZONING DISTRICT

ZONE	DISTRICT	LAND USE
R-A-E	Single Family Residential - Limited Agricultural District (Minimum lot size of 1 acre)	Single family residences, one dwelling unit per lot, guest house
R-A-20,000	Single Family Residential - Limited Agricultural District (Minimum lot size of 20,000 square feet)	Single family residences, one dwelling unit per lot, guest house
R-A-15,000	Single Family Residential - Limited Agricultural District (Minimum lot size of 15,000 square feet)	Single family residences, one dwelling unit per lot, guest house
R-A-10,000	Single Family Residential - Limited Agricultural District (Minimum lot size of 10,000 square feet	Single family residences, one dwelling unit per lot, guest house
RPD	Residential Planned Development (Maximum density at twice the General Plan designation)	Single family residences, one dwelling unit per lot, guest house
A	Agriculture	Single family residences, one dwelling unit per lot, guest house, parks and recreation areas, farms or ranches, land reclamation, facilities for the recovery of gases from previous landfills, golf course, temporary stockpiles of sand and gravel

TABLE 2-5
ZONING DISTRICT

ZONE	DISTRICT	LAND USE
I	Institutional	Public land uses including schools, churches, and the Civic Center.
C-R	Commercial Recreational	Stables, country clubs, archery ranges, fishing ponds, picnic grounds, playground, restaurants, pools, tennis, golf courses.
C-O	Commercial Office	Business and professional offices
C-L	Restricted Commercial (Commercial Limited)	Business and professional offices, retail stores, services, public or private clubs
C-G	Commercial General	Business and professional offices, retail stores, services, sale or service of products, hotel, storage, parking structure, nurseries/garden, restaurants and delis
S-R & D	Scientific Research and Development	Scientific research, limited prototype fabrication and assembly of products, limited processing of chemicals and products
Q	Quarry	Quarrying, excavation of rock, sand and gravel, rock crushing, batching plants, processing of aggregate, landfill, land reclamation, mining, block and tile plants

In addition to these zoning districts, several overlay districts (Horse Overlay and Landmark Overlay) exist for the additional regulation of such uses within designated areas.

RPD's and Specific Plans

Several areas in the City have been developed as residential planned developments. These areas are in the southwestern portion of the City and include Highridge, The Ranch, The Terraces, Cresta Verdes, and other condominium/townhouse projects.

DEVELOPMENT CONSTRAINTS

Physical suitability is a major consideration in the designation of land uses throughout the City. There are areas that cannot successfully accommodate certain types of development due to inherent physical characteristics. These include geotechnical, seismic and flood hazard areas, irregular parcel size and shape, adjacent sensitive land uses, former land uses, and other features which constrain development. These constraints are found in some areas of the City and should be considered in future land use plans. Development constraints identified in the planning area are described in the following sections. The constraints related to public safety are also discussed in greater detail in Section 8.

Steep Terrain

The Palos Verdes Peninsula is situated on a series of uplifted marine terraces. The elevation of the City of Rolling Hills Estates ranges from 300 to 1,200 feet above sea level. The area is characterized by rough rolling terrain, canyons and gullies. Canyons that remain undeveloped include the Agua Negra, George F. Canyon, Ranchview, and Amarga canyons. Portions within individual lots have also been left undeveloped due to the need for extensive grading and other measures that would otherwise be needed to make the land suitable for development.

Areas with steep slopes and loose soils are subject to the damaging effects of erosion due to storm and urban water run-off. The revegetation of steep slopes has helped to control erosion of the hillsides.

Landslide Hazards

Associated with steep slopes is the propensity for unstable ground conditions and landslides. This geologic hazard exists in all steep slope areas in the City. Landslides are believed to result from the combined influence of water-saturated soils and grading activities associated with development. Water saturation might result from rainfall, over-irrigation, and sewage effluent discharge.

High rainfall could loosen soil cohesion or trigger substantial soil erosion and result in hillside slope failure. Also, grading activities could result in uncompacted soils and the disruption of water drainage courses. Construction and development may place excessive loads on weak soils. Active and potentially active landslides in the planning area are discussed in greater detail in the Public Safety Element Background Report.

Seismic Hazards

The Palos Verdes Peninsula is crossed by two earthquake faults: the Newport-Inglewood Fault and the Palos Verdes Fault. Groundshaking and surface rupture hazards are associated with earthquakes along these faults. Other nearby faults also represent seismic risk to the City. They include the Cabrillo, the Whittier, the Torrance-Wilmington, the Malibu Coast, and the Santa Monica-San Fernando Faults.

Steep slopes in the area are susceptible to earthquake-induced slope instability. The associated hazards of earthquake events are also discussed in greater detail in the Public Safety Element Background Report.

Flood Hazards

Flood hazards are not generally a problem in higher elevations such as those occupied by most of the City. There are a number of canyons and gullies which carry stormwaters north and northeast toward the flatter land areas. Flash floods on the canyon bottoms may be a hazard but these areas are generally not developed.

The location of the Palos Verdes Reservoir exposes the area, east of the reservoir, to potential inundation in case of dam failure. Exhibit 8-6, in the Public Safety Element Background Report, shows the inundation area for the Palos Verdes reservoir.

Fire Hazards

Steep slopes, combustible plant materials, high temperatures, low humidity, strong winds, and an ignition source would provide a dangerous combination for a devastating fire. The chaparral vegetation in the canyons helps prevent soil erosion and should not be removed unless the areas are revegetated as soon as possible. Fire prevention efforts must focus on the use of fire retardant construction materials, the provision of adequate fire fighting equipment, the buffer of structures from fuel areas, and the use of fire retardant landscaping.

Land Availability

Very little growth may be expected in the City because the area is relatively builtout. Future growth is constrained by the lack of available vacant land suitable for development. The City is approximately 97.8 percent developed with vacant parcels limited to 49.4 acres.

The potential reuse of areas, such as the quarry, the closed Dapplegray School, and the former landfill site, is limited by the physical and environmental features of the sites. The potential for future growth will, largely, rest on the recycling or expansion of existing land uses.

Infrastructure Constraints

Manmade constraints to future development in the planning area include existing development, the presence of designated utility easements, and zoning restrictions to development. Another factor that controls growth is the adequacy of the existing infrastructure (water, sewer and gas lines, and streets) to handle additional demands brought by development.

Water service is provided by the California Water Service Company which purchases the water from the Municipal Water District. This water comes from the Colorado River and is stored at the Palos Verdes Reservoir which is located at the southeast corner of Palos Verdes Drive North, and Palos Verdes Drive East, in the City of Rolling Hills Estates.

Capacity of this facility is 1,108 acre feet which is equivalent to 361,097,200 gallons. One acre foot of water is adequate to meet the needs of a family of five for one year. The reservoir's capacity thus has the ability to serve the residential areas of the Peninsula for a period in excess of one month should incoming supplies ever be cut off during emergencies. Major water lines are located in Palos Verdes Drive North, East and West. This backbone system is augmented by an extensive system of distribution lines and water storage tanks and is projected to serve a population of 120,000 for the Peninsula.

Electricity is furnished by the Southern California Edison Company. The majority of powerlines are overhead although some lines in the newer developments are underground. According to Edison Company service representatives, future electrical service to Rolling Hills Estates is assured to be adequate.

Gas service is provided by the Southern California Gas Company. No problems have been foreseen. Energy sources on a national scale, however, could change this utility supply.

In 1970 approximately sixty-five percent of the City was served by sewers provided by the Los Angeles County Sanitation District. At the time, septic tanks were utilized by approximately thirty-five percent of the homes in Rolling Hills Estates. Today fifteen percent of the residential areas are not connected to the sanitary sewer district and remain on septic tanks. This condition prevails primarily in the oldest subdivisions which date prior to or just after World War II. Of interest is the fact that a fifteen-inch sewer line traverses the unsewered residential area in the northern part of the City. Since most septic tank systems are about twenty-five years old, they have deteriorated with age and usage, which could develop into environmental and health problems. There have been cases of effluent seeping into canyon bottoms. Also, collapsing septic tanks have been noted to cause soil erosion problems. The City requires that old septic tanks be replaced with sewer connections if they cannot be repaired. The possibility of more occurrences of waste seepage into canyons caused by such antiquated septic tanks increases with time, and the need for a sewer master plan becomes more evident.

The City of Rolling Hills Estates is located within the jurisdictional boundaries of Los Angeles County Sanitation District No. 5. The Sanitation Districts own, operate, and maintain the major sewage conveyance network which services the Cities located within this

District. An index map depicting the locations of all Sanitation District No. 5 trunk sewers has been enclosed. A list of the conveyance facilities located within the City of Rolling Hills Estates, which includes the pipe diameters and a description of their locations, has also been enclosed. All facilities listed currently have available capacities to accommodate additional flows ranging from 1.2 million gallons per day (mgd) to 3.7 mgd. Local collector sewer lines, although tributary to the Districts trunk sewer network, are not maintained by the Sanitation Districts.

Wastewater from the City of Rolling Hills Estates is processed at the Joint Water Pollution Control Plant (JWPCP), located in the City of Carson. The JWPCP has a design capacity of 385 mgd and currently provides tertiary treatment to average wastewater flow of 374 mgd, with 200 mgd receiving secondary treatment.

City of
Rolling Hills Estates



GENERAL PLAN

Transportation Element

SECTION 3.1
INTRODUCTION

The Transportation Element of the *Rolling Hills Estates General Plan* evaluates the existing roadway system and identifies measures so that the system will be able to accommodate existing and future traffic in the City. The Transportation Element contains goals and policies that emphasize the need for providing an efficient circulation system and a plan for improving the existing roadway network to handle traffic increases due to both regional and local growth.

California Government Code Section 65302(b) requires that the Transportation Element identify the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other public utilities and facilities. The Element includes a circulation plan which provides for a comprehensive circulation system designed to accommodate the projected transportation needs of the City at build-out of the land use plan.

Other circulation issues involving equestrian trails, bikeways, and multi-use trails are addressed in the Open Space and Recreation Element.

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SECTION 3.2
TRANSPORTATION ELEMENT GOALS AND POLICIES

The Transportation Element focuses on the future circulation and transportation needs of the community. The element contains goals and policies relating to the provision of an efficient circulation system. A number of other transportation related issues are also addressed including equestrian trails, bikeways, public transportation systems, pedestrian circulation, parking, and scenic roadways.

Issue: Safe Driving Conditions

The value of safe driving conditions to the pedestrian and the driver cannot be underestimated. The prevention of accidents and the threat to life and property is a major concern in the City.

Goal 1: **Provide for safe driving conditions on all City streets.**

Policy 1.1 Provide comprehensive and ongoing evaluation of potentially dangerous streets and intersections within the City.

1.1.1 Implementation Measure: The City will continue to cooperate with the efforts of the Sheriff's Department in collecting all accident-related data. Information will be included in an annual report prepared for the City Council and Traffic and Safety Committee for review.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 1.2 Encourage the involvement of the Traffic and Safety Committee in assessing traffic safety concerns. Encourage the involvement and interaction of Homeowners Associations with the Traffic Safety Committee in an effort to augment its information base as it relates to traffic safety concerns.

1.2.1 Implementation Measure: The Traffic and Safety Committee will review all roadway improvement plans.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 1.3 Discuss trends in traffic safety on an ongoing basis with the City's Traffic and Safety Committee and the City Council. Support the efforts of the Sheriff's Department in collecting all accident-related data.

1.3.1 Implementation Measure: The Public Works Department will incorporate trends in traffic safety in the update and an annual review of the Capital Improvement Program.

Timing: Annual review
Agency: Public Works Department
Funding: General fund

Policy 1.4 The widening of streets, installation of additional traffic signals, removal of trees, and other roadway improvements should be compatible with the rural character of the City.

1.4.1 Implementation Measure: The Planning Department should be involved in the review of roadway improvement projects.

Timing: Immediate and ongoing
Agency: Planning and Public Works Department
Funding: General fund

Policy 1.5 Evaluate and if appropriate, pursue the realignment (as shown on the Master Plan of Streets) of Palos Verdes Drive East at the Chandler Quarry.

1.5.1 Implementation Measure: If appropriate the City will identify this realignment project for funding for the next Capital Improvement Program (5 year budget) allocation and prepare a schedule for project implementation.

Timing: Fiscal Year 1994
Agency: Public Works Department
Funding: None required for CIP

Policy 1.6 Discourage additional access points on arterial streets such as Palos Verdes Drive North, Hawthorne Boulevard, and Palos Verde Drive

East and reduce secondary access points on residential properties, where appropriate.

1.6.1 Implementation Measure: The Planning and Public Works Departments will consider Policy 1.6 when reviewing future development proposals in areas adjacent to the above roadways.

Timing: Immediate and ongoing
Agency: Public Works Department, Planning Department
Funding: General fund

Policy 1.7 Restrict the access and travel of large trucks on Crenshaw Boulevard, Palos Verdes Drive North and other weight-restricted roadways.

1.7.1 Implementation Measure: The Public Works Department will work with the Sheriff's Department to post appropriate signage, develop appropriate ordinances, and undertake enforcement.

Timing: Immediate and ongoing
Agency: Planning and Public Works Department
Funding: General Fund

Policy 1.8 Maintain and improve when feasible, the arrestor beds to current design standards (subsurface roadway foundation) on Hawthorne Boulevard to meet the current accepted traffic engineering standards and encourage Los Angeles County to install arrestor beds on Crenshaw Boulevard.

1.8.1 Implementation Measure: The City will review Capital Improvement Programs for the next five years and identify this project's priority on the CIP.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: None required for CIP

Policy 1.9 The City will review and where appropriate, designate those roadways where larger trucks (6,000 pounds) are prohibited.

1.9.1 Implementation Measure: The City will review Capital Improvement Programs for the next five years and identify this project as a priority. The Public Works and

Planning Departments will prepare a study indicating roads where trucks will be prohibited, signage, enforcement, and appropriate ordinances required for implementation.

Timing: Fiscal Year 1994
Agency: Public Works and Planning Department
Funding: None required for CIP

Policy 1.10 Cooperate and participate with Los Angeles County and adjacent jurisdictions in their efforts to reduce unsafe driving conditions and to enforce traffic-related laws.

1.10.1 Implementation Measure: The Public Works Department will meet with the Los Angeles County Sheriff's Department periodically to review problems in the City.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 1.11 Prohibit large trucks on collector and local streets in the City unless deliveries are being made to specific locations on those streets.

1.11.1 Implementation Measure: The City Department of Public Works will review, and if necessary, prepare an appropriate ordinance for review by City Council and Traffic Safety Committee.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 1.12 Provide for additional safety mechanisms on the northbound (downhill) side of Hawthorne Boulevard, to handle out-of-control vehicles, especially trucks.

1.12.1 Implementation Measure: The Public Works Department will review Capital Improvement Programs for the next five years and identify this project as a priority.

Timing: Fiscal Year 1994
Agency: Public Works Department

Funding: General Fund

Policy 1.13 Provide landscaping and widen the concrete sidewalk on the Rolling Hills Estates side (southeast) of Silver Spur Road between Willow Wood Road and Marloma Drive.

1.13.1 Implementation Measure: The Public Works Department will review the City's Capital Improvement Program for the next five years and identify this project as a priority.

Timing: Fiscal Year 1993
Agency: Public Works Department
Funding: General fund

Policy 1.14 Encourage the continuation of a Peninsula-wide traffic committee to address regional traffic and safety issues.

1.14.1 Implementation Measure: The Public Works Department will initiate dialogue with surrounding jurisdictions concerning the feasibility of establishing a Peninsula-wide traffic committee.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General Fund

Issue: Efficient Traffic Flow

The main purpose of the circulation system is to provide the most efficient way for individuals to travel between points of activity. In support of the community's needs, the City is determined to keep traffic flows in the area efficient and non-disruptive.

Goal 2: Promote efficient traffic flow on City streets without compromising the lower density character of Rolling Hills Estates.

Policy 2.1 Restrict the construction of additional travel lanes within the City so as not to adversely affect the established rural residential character of the area.

2.1.1 Implementation Measure: The City will implement Land Use and Circulation Plan included in the Land Use Element and Transportation Element respectively.

Timing: Immediate and ongoing
Agency: Planning and Public Works Department
Funding: General fund

Policy 2.2 Discourage primary and secondary access on arterial streets for properties without frontage along these roadways.

2.2.1 Implementation Measure: Public Works and Planning will continue to review all development proposals.

Timing: Immediate and ongoing
Agency: Planning and Public Works Department
Funding: General fund

Policy 2.3 Discourage secondary access on major arterials for properties having frontage on these streets, except where alternatives are not available.

2.3.1 Implementation Measure: The Public Works and Planning will continue to review all development proposals.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 2.4 Strive to maintain a level of service of "D" or better at all commercial intersections (refer to Table 3-3 in Section 3.3).

2.4.1 Implementation Measure: The Planning and Public Works Department will monitor Levels of Service using the Intersection Capacity Utilization (ICU) method on all major roadways. All new commercial developments will be required to prepare a traffic study indicating the level of impact.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 2.5 Discourage the installation of additional traffic signals except where it is determined that such improvements are required for public safety needs or to mitigate serious congestion or roadway hazards.

2.5.1 Implementation Measure: The Public Works Department will require installation of traffic signals where traffic signal warrants are indicated in traffic studies.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 2.6 Evaluate the use of crossing guards at appropriate school crossing locations to promote pedestrian safety and efficient traffic flow.

2.6.1 Implementation Measure: The City will meet with the School Districts on an as needed basis to discuss issues related to pedestrian safety.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 2.7 Review major development in other Palos Verdes Peninsula cities, evaluate the potential traffic impacts, and encourage appropriate mitigation measures.

2.7.1 Implementation Measure: The Planning Department will notify neighboring special districts, agencies, and cities that Rolling Hills Estates should be placed on a review list to receive notices concerning negative declarations and environmental impact reports. A staff person will be designated to undertake and to comment on the review.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.8 Discourage use of Palos Verdes Drive North as alternate route for Pacific Coast Highway by out-of-town traffic.

2.8.1 Implementation Measure: The Public Works Department will work with the Sheriff's Department to review appropriate procedures to follow in discouraging use of this roadway as a through-street

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General Fund

Policy 2.9 Require new developments within the City and on the Palos Verdes Peninsula which degrade traffic flow at an intersection below a Level of Service of C or D to mitigate the adverse traffic impacts associated with their developments in accordance with City approval with mitigation measures.

2.9.1 Implementation Measure: New projects will be evaluated through the environmental review process and mitigation measures other than roadway widenings and major capital improvement projects will be emphasized.

Timing: Immediate and Ongoing
Agency: Public Works Department
Funding: General fund

Policy 2.10 Growth should be limited to that which can be accommodated by existing roadways.

2.10.1 Implementation Measure: The City will implement the General Plan Land Use Policy.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.11 Restrict the expansion of roadway pavements into open space, roadway buffer zones, and bicycle, pedestrian, equestrian trails.

2.11.1 Implementation Measure: The City will implement the General Plan Land Use Policy.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.12 Optimize street and intersection design to facilitate traffic flow while ensuring such improvements are consistent with the rural character of the City.

2.12.1 Implementation Measure: The City will implement the General Plan Land Use Policy and Master Plan of Streets. The City will also evaluate mitigation measures from adjacent cities and promote those that do not involve the widening of roadways.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.13 Encourage commuter (rush hour) traffic to utilize Hawthorne and Crenshaw Boulevards to Pacific Coast Highway or Sepulveda Boulevard instead of Palos Verdes Drive North.

2.13.1 Implementation Measure: The Public Works Department will work with the Sheriff's Department to review appropriate procedures to follow in discouraging use of this roadway as a through-street.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 2.14 Maintain institutional and recreational uses along major roadways to reduce potential through traffic impacts in adjacent areas. At the same time, promote the retention of neighborhood schools to reduce both the number and length of vehicle trips.

2.14.1 Implementation Measure: The City will implement General Plan Land Use Policy. Work with the local school district to promote retention of existing neighborhood schools.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Issue: Multi-Use Recreational Trails

Alternative ways of travel in the City are provided by equestrian trails, bicycle paths and pedestrian walks. To reduce the dependence on vehicular travel, these means should be promoted and made accessible.

Goal 3: **Provide safe and comprehensive trail systems for equestrian, bicycle, and pedestrian use and promote the development of connections between existing trail systems where feasible.**

Policy 3.1 Any new development will be encouraged to provide connections between trails, where appropriate.

3.1.1 Implementation Measure: The Community Services and Planning Departments will review future development proposals to identify potential connections to the trail system.

Timing: Immediate and ongoing
Agency: Community Services Department and Planning Department
Funding: General Fund

Policy 3.2 Encourage development of a Peninsula-wide loop trail as shown in the 1957 Los Angeles County Regional Recreational Plan.

3.2.1 Implementation Measure: The Community Services Department will initiate dialogue with neighboring jurisdictions to discuss feasibility of implementing a regional trails system.

Timing: Begin in 1994
Agency: Community Services Department
Funding: None required

Policy 3.3 Minimize the interface of bridle trails and City streets where feasible.

3.3.1 Implementation Measure: The Community Services and Planning Departments will review future development proposals to identify potential connections to the trail system.

Timing: Immediate and ongoing
Agency: Community Services and Planning Department
Funding: General fund

Policy 3.4 Restrict motorized vehicles/bicycles from using designated equestrian trails except in case of emergency, trail maintenance, or to service the property.

3.4.1 Implementation Measure: The Community Services Department will ensure that appropriate signage is posted and work with the Sheriff's Department for enforcement.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Policy 3.5 Establish a program designed to educate residents in how to safely and courteously use the trail network.

3.5.1 Implementation Measure: The Community Services Department will prepare a brochure that will be distributed Citywide informing residents about trail safety.

Timing: 1993
Agency: Community Services Department and City Manager
Funding: General fund

Policy 3.6 Encourage new trails to be constructed with an irrevocable offer to dedicate to the City and ensure that all trails are available for public access.

3.6.1 Implementation Measure: The Community Services Department will initiate dialogue with neighboring jurisdictions to discuss feasibility of implementing a regional trails system.

Timing: Begin in 1994
Agency: Community Services Department
Funding: General fund

Policy 3.7 Encourage cooperation among Peninsula jurisdictions to establish comprehensive multi-use trail network for equestrian, bicycle, and pedestrian use and encourage development of additional on-street bike paths to enable the development of a Peninsula-wide loop system.

3.7.1 Implementation Measure: The Community Services Department will initiate dialogue with neighboring jurisdictions to discuss feasibility of implementing a regional trails system.

Timing: Begin in 1994
Agency: Community Services Department
Funding: General fund

Policy 3.8 Encourage the expansion of pedestrian paths in residential and commercial areas and incorporate pedestrian activity on all off-street bike paths.

3.8.1 Implementation Measure: The Community Services and Planning Departments will review future development proposals to identify potential connections to the trail system.

Timing: Immediate and ongoing
Agency: Community Services and Planning Department
Funding: General fund

Policy 3.9 Evaluate the use of the equestrian trail network as an alternative transportation system for use in the event of an emergency.

3.9.1 Implementation Measure: The Public Works Department, County of Los Angeles Fire Department, and City Manager will review the feasibility of using selected trails to provide emergency access.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 3.10 Continue to investigate possible funding sources for acquisition, development and maintenance of trails and bicycle paths.

3.10.1 Implementation Measure: The Community Services Department will investigate potential funding sources.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Issue: Transit and Transportation Demand Management (TDM)

Public transportation and TDM reduce traffic congestion and provide better utilization of City streets. With increasing energy costs, congestion and pollution, it is prudent to reconsider the expansion of public transportation in the area.

Goal 4: **Promote greater use of public transit as an alternative means of transportation.**

Policy 4.1 Encourage and promote greater use of public transportation including car pools, van pools, and bus services.

4.1.1 Implementation Measure: The City Manager will initiate a program publicizing regional and local planning efforts to promote use of public transit through the City's newsletter.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 4.2 Encourage large employment centers to provide increased van pool service to Peninsula residents.

4.2.1 Implementation Measure: The Planning Department will cooperate with the South Coast Air Quality Management District to ensure that the City will adhere to Regulation XV.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 4.3 Pursue additional park and ride locations through cooperation with other Peninsula communities and major employment centers.

4.3.1 Implementation Measure: The Public Works Department will initiate a program publicizing regional and local planning efforts to promote use of public transit.

Timing: Immediate and ongoing
Agency: Public Works Department and City Manager
Funding: General fund

Policy 4.4 Promote the development of a comprehensive bus service system, including fixed-route programs to various points of interest such as commercial centers, schools, and recreation areas.

4.4.1 Implementation Measure: The Public Works Department will initiate a program publicizing regional and local planning efforts to promote use of public transit.

Timing: Immediate and ongoing
Agency: Public Works Department and City Manager
Funding: General fund

Policy 4.5 Participate in and encourage Peninsula-wide cooperation among the various jurisdictions to provide comprehensive programs to address the public transportation needs of the region.

4.5.1 Implementation Measure: The Public Works Department will initiate a program publicizing regional and local planning efforts to promote use of public transit.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General Fund

Policy 4.6 Encourage the use of school buses for students attending schools within the City and encourage parents to have their children utilize alternate means of transportation to get to school.

4.6.1 Implementation Measure: The Public Works Department will initiate a program publicizing regional and local planning efforts to promote use of public transit.

Timing: Immediate and ongoing
Agency: Public Works Department and City Manager
Funding: General fund

Issue: Parking Areas

The provision of adequate parking areas facilitate the onset and completion of vehicular travel. Inadequate parking often leads to congestion and additional traffic delays.

Goal 5: **Promote efficient, safe and convenient parking facilities within the commercial areas of the City.**

Policy 5.1 Require compliance with minimum standards for parking lot designs as specified by the Municipal Code.

5.1.1 Implementation Measure: The Planning Department will continue to review all parking lot designs to ensure they are in compliance with City standards.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 5.2 Require parking lot designs to provide easy access to nearby retail areas.

5.2.1 Implementation Measure: The Planning Department will continue to review all parking lot designs to ensure they are in compliance with City standards.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 5.3 Eliminate on-street parking spaces to improve circulation along commercial streets where appropriate.

5.3.1 Implementation Measure: The Public Works Department will identify those roadways serving commercial areas where on-street parking is still permitted and establish a timetable to eliminate on-street parking where off-street parking is appropriate.

Timing: 1993
Agency: Public Works Department
Funding: General fund

Policy 5.4 Require existing retail and commercial uses with substandard circulation or parking conditions to upgrade their facilities to established design standards.

5.4.1 Implementation Measure: The Public Works Department will identify those roadways serving commercial areas where on-street parking is still permitted and establish a timetable to eliminate on-street parking where off-street parking is appropriate.

Timing: 1993
Agency: Public Works Department
Funding: General fund

Policy 5.5 Require adequate off-street parking for remodeled and future developments.

5.5.1 Implementation Measure: The Planning Department will continue to review all parking lot designs to ensure they are in compliance with City standards.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 5.6 Regulate overnight street parking and parking of recreational vehicles on public streets.

5.6.1 Implementation Measure: The Sheriff's Department will continue to enforce on-street parking requirements in the City.

Timing: Immediate and ongoing
Agency: Sheriff's Department
Funding: General fund

Policy 5.7 Maintain institutional facilities along major roads and in areas where they are readily accessible.

5.7.1 Implementation Measure: The City will implement the General Plan Land Use Policy.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 5.8 Maintain schools and school sites within residential areas to promote short trips, less traffic, and student safety.

5.8.1 Implementation Measure: The City will implement the General Plan Land Use Policy.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

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ROADWAY CLASSIFICATION

This section of the Transportation Element establishes roadway classifications and standards for the City. The roadway classification system for the Rolling Hills Estates General Plan consist of four roadway categories: major arterials, secondary arterials, collector streets, and local streets. Appropriate standards for each category are described below. Exhibit 3-1 illustrates the circulation system for the City of Rolling Hills Estates as provided in this Transportation Element. Conceptual cross-sections of each roadway category are provided in Exhibit 3-2.

Arterial Roadways

Arterial Roadways comprise the backbone transportation network for the City. They are the important streets which connect major traffic generators (such as shopping centers, employment activities, etc.) in addition to providing direct connections to freeways and other major roadways. The traffic function of arterials is that of moving vehicles - particularly regional traffic on long trips between distant points. Property access is a secondary function. For this reason, driveways and intersections should be restricted and controlled. Access to property abutting an arterial should be provided, if at all possible, by some other route. Arterials are designated "Major" and "Secondary", according to their relative importance.

The City's general policy has been to minimize the number of access points on arterial streets. Additional points of access along these arterials not only pose potential safety hazards for vehicles making various turning movements, but also effects the flow of traffic on those streets most heavily travelled. By consolidating the points of ingress and egress along these streets, traffic flow is improved while minimizing potential points of conflict with residential access and major arterials.

- ***Major Arterial*** streets are the most important roadways in this category and are designed to carry through traffic on four or more moving lanes of traffic, with controlled access to any area of development.

- ***Secondary Arterial*** streets are of less importance, but still designed to carry through traffic. Their function is to transfer traffic from local streets to the Major Arterials from local traffic generators, such as schools and shopping centers. Streets in this category will generally be designed for two or four moving lanes of traffic.

Major Arterial Streets include the following roadways:

- Hawthorne Boulevard
- Crenshaw Boulevard

Secondary Arterial Streets include the following roadways:

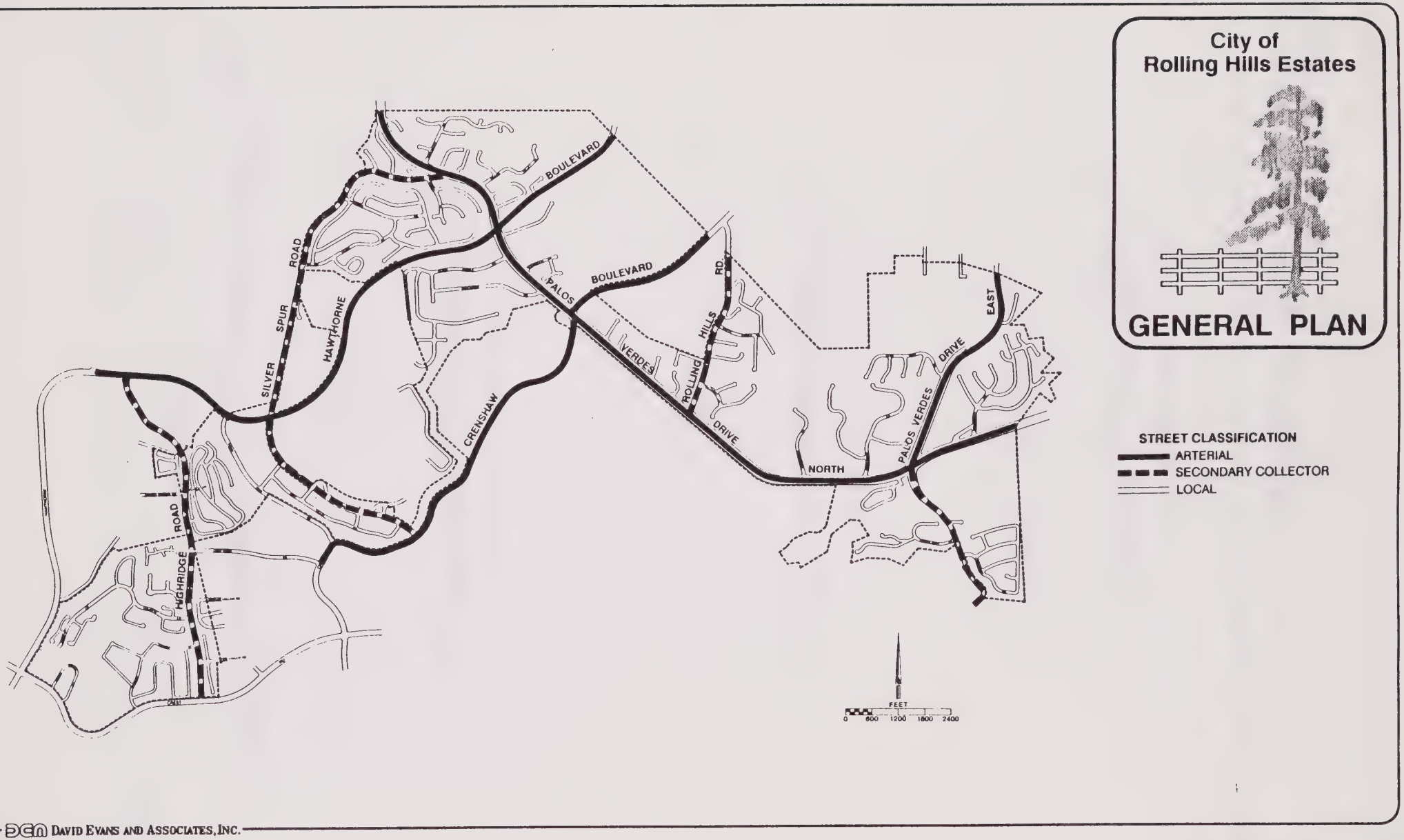
- Palos Verdes Drive North
- Silver Spur Road
- Palos Verdes Drive East
- Indian Peak Road
- Rolling Hills Road
- Crest Road, between Hawthorne and Crenshaw Boulevards
- Silver Spur from Monte Malaga to Palos Verdes Drive North

Collector Streets

Collector Streets terminate at an Arterial Street so that traffic generated on the local streets can have easy access to the primary street system consisting of the arterial roadways. This Plan indicates those roadways classified as Collectors. Certain additional safety measures should also be taken, such as signing all local streets that intersect with the Collector with either "Yield" or "Stop" Signs to permit the Collector to better perform its job in the total street system.

Collector Streets include the following roadways:

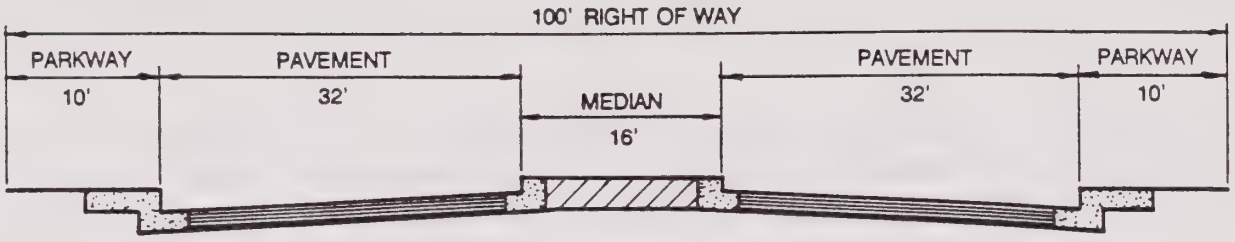
- Whitley Collins Road
- Willow Wood Road
- Kingspine Road

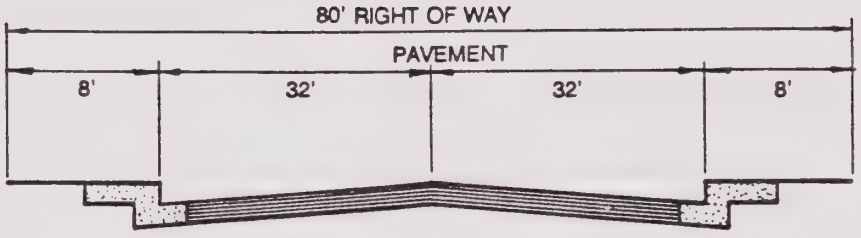


DAVID EVANS AND ASSOCIATES, INC.

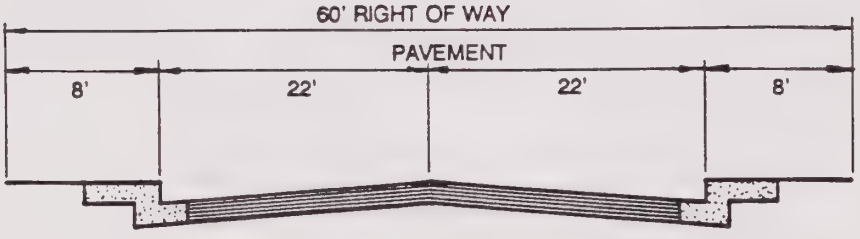
MASTER PLAN OF ROADS

Exhibit 3-1

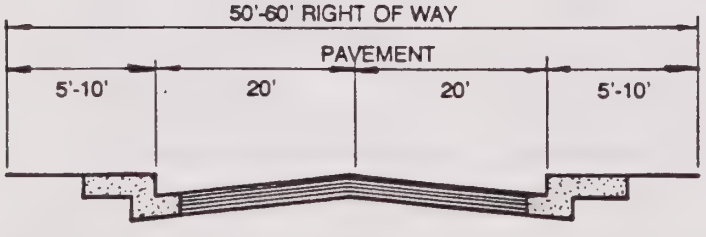




Arterial Roadways



Local Collector



Local Streets

CONCEPTUAL ROADWAY CROSS-SECTIONS (MINIMUM STANDARDS)

Exhibit 3-2

Local Streets

Local Streets are designed to carry traffic to individual parcels and should be designed to discourage through traffic. Their primary function is to provide access to the property which abuts the street. They also act as open space and firebreaks. All of the remaining roadways in the City are classified as Collector Streets.

TRANSPORTATION PLAN MAP

The Transportation Plan Map is provided in Exhibit 3-1. The Map shows all of the existing streets that should be designated as Arterials, both major and secondary; the collector roads, local roads, and suggested routes of proposed extensions or new streets in these categories. It should be noted that where new streets are proposed, the map line does not indicate a precise location, but rather a generalized location subject to either a proposed subdivision of the area, or precise alignment by the adoption of a "Plan Line".

Table 3-1 summarizes the roadway classifications and the applicable standards.

TABLE 3-1
ROADWAY CLASSIFICATION STANDARDS

Roadway Classification	Standards	Facilities
Arterial (Major and Secondary)	2 to 4 travel lane Divided roadway Left-turn lanes/pockets 60 to 80 feet road width 80 to 100 feet right-of-way width	Palos Verdes Dr. North Hawthorne Blvd. Crenshaw Blvd. Palos Verdes Dr. East Silver Spur Road Indian Peak Road Rolling Hills Road Crest Road Highridge Road
Collector Streets	2 to 4 travel lanes Undivided road 32-to 52-foot road width 60-foot right-of-way width	Willow Wood Road Whitney Collins Road Kingspine Road
Local Streets	Two travel lanes 36- to 40-foot road width 50- to 60-foot right-of-way width	All remaining streets in Rolling Hills Estates not otherwise classified as collector or arterial roadways.
Source: City of Rolling Hills Estates, 1991.		

LAND USE PLAN

To assess the effect of the General Plan Land Use Policy on traffic, it was first necessary to obtain the background traffic projects for each major area of the City. This information is documented in the background section of this element. The next step was to determine the projected traffic from the areas where the land use is proposed to be changed or modified. Where areas are either vacant or underutilized, the traffic projections indicate the more intense use. This approach is the most conservative approach from a traffic analysis point of view.

Table 3-2 indicates the traffic generating factors used in projecting the traffic impacts resulting from the implementation of land use policy. The generation factors should also be used in evaluating traffic impacts from future development in the City.

TABLE 3-2
TRIP GENERATION

Land Use	Trip Rate	Per
Single-Family Housing	10.0	Unit
Condominium	5.9	Unit
Apartment	6.1	Unit
Regional Shopping Center	48.3	1,000 SF
Community Shopping Center	74.3	1,000 SF
Neighborhood Shopping Center	40.7	1,000 SF
Commercial Office	22.7	1,000 SF
Government Office	68.9	1,000 SF

Source: ITE, 4th Edition.

The following changes to traffic patterns are anticipated with the implementation of the land use policy:

- New residential traffic from the Northrop and Chandler sites will follow current traffic distribution and the volumes are substantially less than that generated by the existing use.
- The majority of new traffic on arterials will be generated by development outside the City.

- The implementation of the land use plan will result in a stabilization of trip generation in most areas of the City and there will be a reduction in the number of trucks with the eventual termination of Chandler Quarry activities.

In summary, the land use plan will involve a long-term transition of land uses in some areas of the City. This future development will not result in significant trip generation.

LEVELS OF SERVICE

A roadway's ability to handle current traffic loads can be described in terms of level of service (LOS). The LOS is the ratio of a road's desirable service volume to the existing traffic volumes. For example, a road with a design capacity of 24,000 vehicles per day (vpd) carrying 20,000 vpd has an LOS ratio of 0.83. Ratio ranges can be used to describe actual traffic operating conditions as outlined in Table 3-3 and is shown in Exhibit 3-3. For example, a ratio of 0.83 corresponds to LOS D, which is characterized by unstable traffic flows compared to a ratio of 0.70 which corresponds to an LOS B which represents a condition of free flowing traffic.

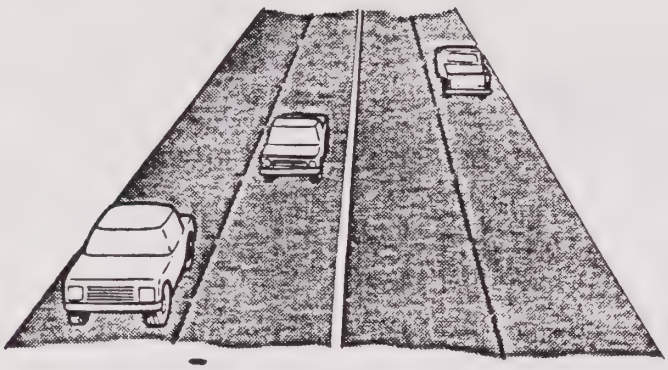
The LOS can be calculated if the design capacity for average daily traffic (ADT) and the existing traffic volumes (in ADT) are known. City standards call for a LOS of D on local roadways.

TABLE 3-3
INTERSECTION LEVEL OF SERVICE DEFINITIONS [a]

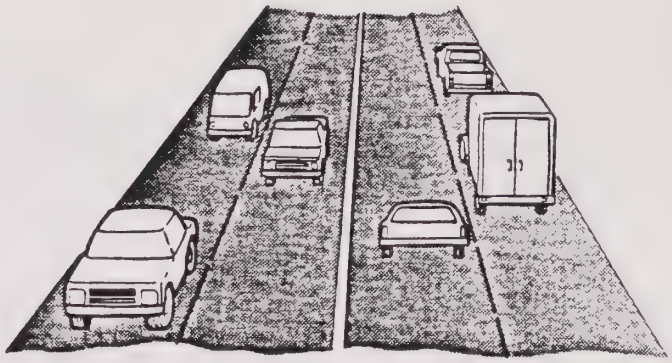
LOS	Interpretation	V/C Ratio [b]
A, B	Uncongested operations; all vehicles clear in a single signal cycle	0.00 - 0.70
C	Light congestion; occasional backups on critical approaches	0.71 - 0.80
D	Congestion on critical approaches, but intersection function. Vehicles required to wait through more than one cycle during short peaks. No long-standing lines formed.	0.81 - 0.90
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movement.	0.91 - 1.00
F	Severe congestion approaching gridlock.	1.01+

[a] Source: Highway Capacity Manual, 1965.
[b] Volume/level of service E capacity.

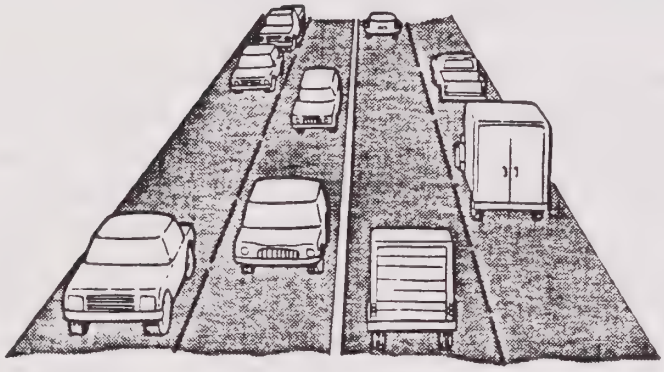
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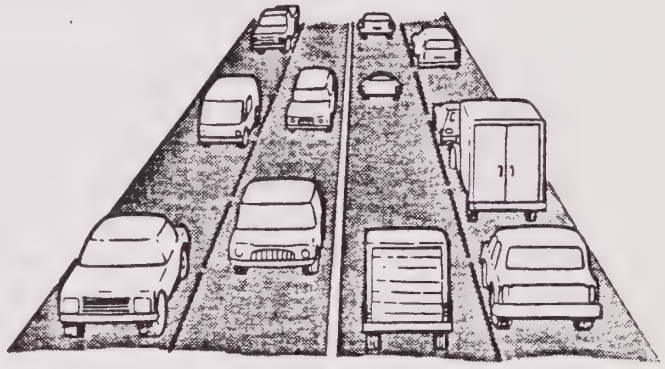
Level of Service A
Free flow in which there is little or no restriction on speed or maneuverability.



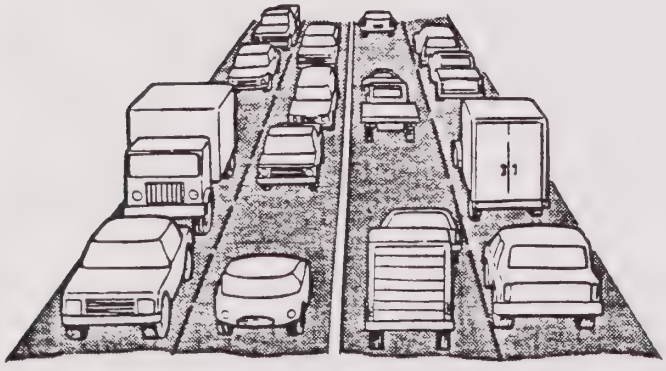
Level of Service B
Stable flow though operating speed is beginning to be restricted by other traffic.



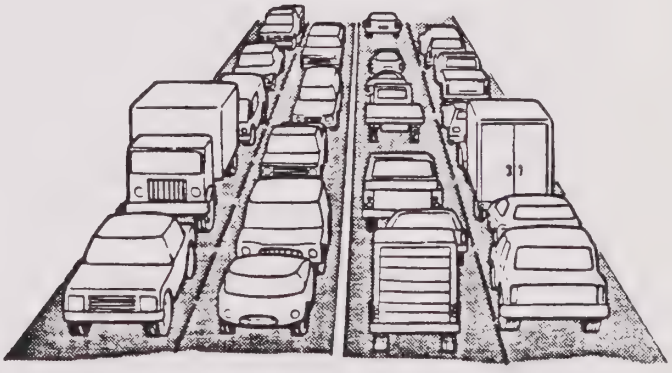
Level of Service C
Stable flow though drivers are becoming restricted in their freedom to select speed, change lanes or pass.



Level of Service D
Tolerable average operating speeds are maintained but are subject to considerable sudden variation.



Level of Service E
Speeds and flow rates fluctuate and there is little independence on speed selection or ability to maneuver.



Level of Service F
Speeds and flow rates are below those attained in Level of Service E and may, for short time periods, drop to zero.

LEVELS OF SERVICE

Exhibit 3-3

EXISTING CIRCULATION SYSTEM

The Transportation Element Background Report provides a detailed analysis of transportation and traffic-related issues in the City. This report discusses the existing roadways and other transportation-related improvements, existing roadway levels of service, and public transit.

Regional access to the City is provided by the Harbor Freeway (State Highway 110) and the San Diego Freeway (I-405). The former is located approximately 2-1/2 miles to the east while the latter is located approximately 4 miles to the north of the City.

A limited number of roadways serve as the backbone transportation system in the City. Major east/west movement is provided by Palos Verdes Drive North, an arterial roadway, which serves as the primary roadway in the City. A number of other arterial roadways, including Hawthorne Boulevard, Crenshaw Boulevard, and Palos Verdes Drive East, carry large volumes of through-traffic to other communities in the Peninsula. Four roadways, Highridge Road, Silver Spur Road, Rolling Hills Road, and a portion of Palos Verdes Drive East, are designated as secondary collectors and primarily serve communities and commercial districts located within the City. The existing circulation system is shown in Exhibit 3-4.

Existing Traffic Conditions

This section of the Transportation Element Background Report evaluates the efficiency of traffic flow on the City's street system. While most of the streets in the City are residential cul-de-sacs, with no through-traffic impacts, a substantial increase in traffic has been experienced on the major arterials of the City, most notably Palos Verdes Drive North. Because major arterials such as Palos Verdes Drive North, Hawthorne Boulevard, and Rolling Hills Road are primary commute routes for much of the South Bay area, the increase in traffic congestion that has occurred in recent years has been the result of regional growth. Future development in the Peninsula/South Bay region will result in additional traffic congestion as these commute routes become even more significant.

To assist in the evaluation of traffic congestion issues, daily traffic volumes were provided in a 1983 report prepared by Greer & Co. and in later environmental studies completed for individual developments (Greer 1988, Frank 1990). In addition, the City's Traffic Engineer has provided analysis of recent trends in traffic flow with particular emphasis on Palos Verdes Drive North.

Exhibit 3-5 and Table 3-4 indicate traffic volumes on various streets within the City. The highest volumes are shown on Hawthorne Boulevard, Crenshaw Boulevard, and Palos Verdes Drive North. While the amount of vehicles on all three streets is substantial, Hawthorne and Crenshaw Boulevards have a minimum of four lanes helping to minimize significant traffic congestion problems.

TABLE 3-4
ROADWAY VOLUMES

Roadway Segment	ADT
Crenshaw Blvd. n/o Palos Verdes Dr. N.	19,800*
Crenshaw Blvd. s/o Palos Verdes Dr. N.	30,300*
Crenshaw Blvd. s/o Silver Spur Rd.	16,430
Hawthorne Blvd. n/o Palos Verdes Dr. N.	33,600*
Hawthorne Blvd. s/o Palos Verdes Dr. N.	28,400*
Highridge Road	6,910
Silver Spur Rd. n/o Willow Wood	14,280
Silver Spur Rd. s/o Willow Wood	8,380
Silver Spur Rd. se/o Hawthorne Blvd.	15,150
Silver Spur Rd. w/o Crenshaw Blvd.	13,870
Palos Verdes Dr. N. w/o Silver Spur Rd.	14,980
Palos Verdes Dr. N. w/o Hawthorne Blvd.	16,100
Palos Verdes Dr. N. w/o Crenshaw Blvd.	12,100
Palos Verdes Dr. N. e/o Crenshaw Blvd.	23,000*
Palos Verdes Dr. N. e/o Rolling Hills Rd.	35,000*
Palos Verdes Dr. N. e/o Palos Verdes Dr. E.	30,300
Palos Verdes Dr. E. n/o Palos Verdes Dr. N.	7,620
Palos Verdes Dr. E. s/o Palos Verdes Dr. N.	10,300
Rolling Hills Rd. n/o Palos Verdes Dr. N.	8,780

Note: Average daily traffic volumes are for 1983, City of Rolling Hills Estates 1988. n/o = north of, s/o = south of, e/o = east of

Source: Greer and Company. 1983 *1988 est.

City of
Rolling Hills Estates

GENERAL PLAN



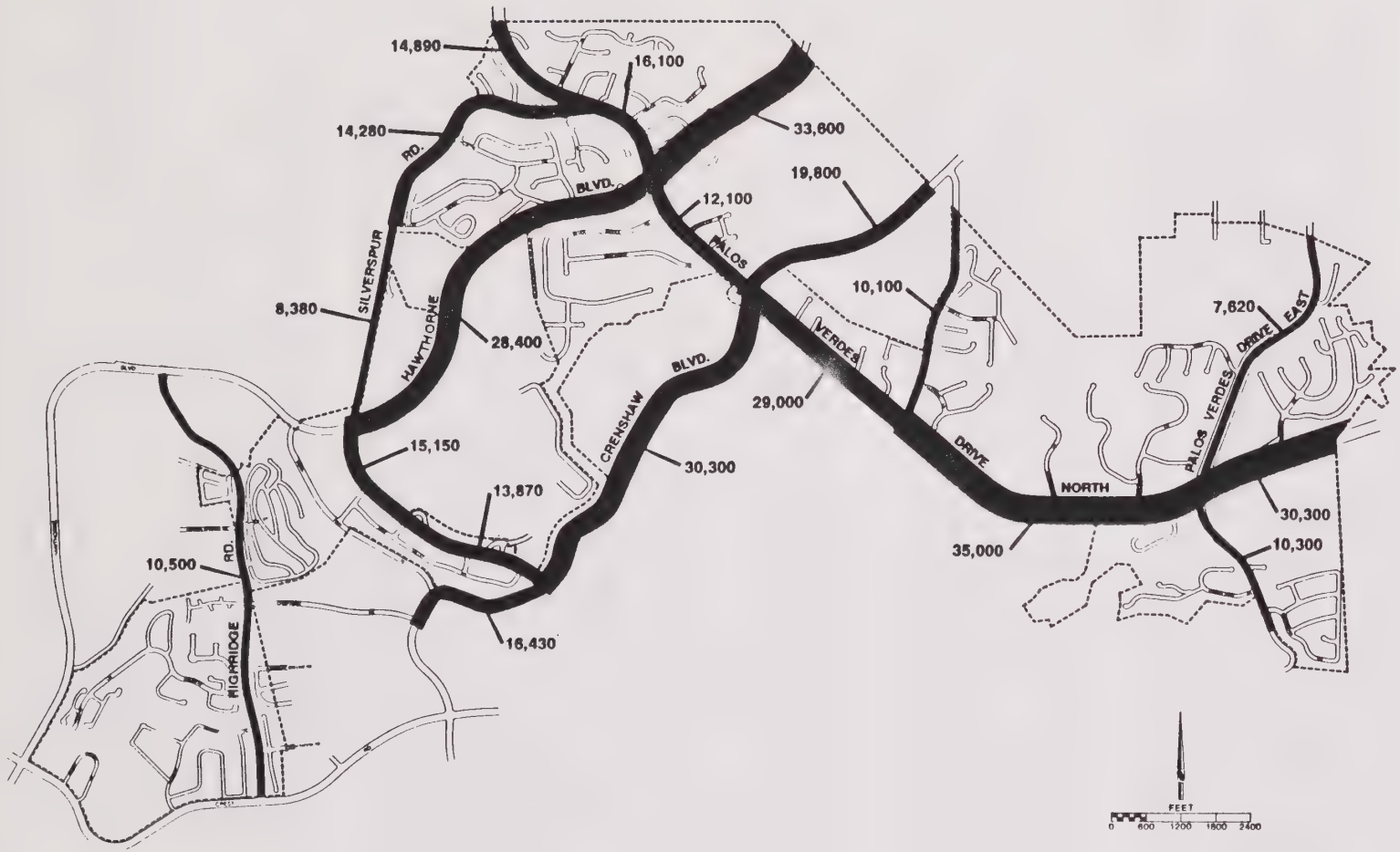
DAVID EVANS AND ASSOCIATES, INC.

EXISTING ROADWAYS

Exhibit 3-4

City of
Rolling Hills Estates

GENERAL PLAN



LEGEND

24,960 - NUMBERS REFER TO AVERAGE DAILY TRAFFIC VOLUMES

Source: Greer and Associates

DAVID EVANS AND ASSOCIATES, INC.

AVERAGE DAILY TRAFFIC VOLUMES (1988)

Exhibit 3-5

In contrast Palos Verdes Drive North has only two lanes for most of its length through the City yet carries more traffic, in some areas, than any other street in the City. Therefore, congestion has become a much more significant concern on this roadway.

In the City's consideration of traffic flow concerns, the most significant street is Palos Verdes Drive North. This street is not only the main artery of Rolling Hills Estates, but one of the primary commute routes for the Peninsula.

For years the majority of traffic has been oriented toward an eastbound commuter route in the morning and westbound direction in the evening, providing access to and from the Harbor Freeway. Recent data indicates that traffic has become much heavier for both westbound morning and eastbound evening traffic. Much of this traffic can be attributed to the aerospace industry locations in the El Segundo area. As a result, the congestion problems on Palos Verdes Drive North, during peak commute hours, have become significant in both directions. In fact, current traffic levels in each direction are almost evenly split. (See Table 3-5.)

There has also been a change in overall traffic volumes on Palos Verdes Drive North. The roadway has experienced a 19% increase over the last five years, and 28% in the last ten years. While these increases have further contributed to the peak hour congestion, it is also important to note that the length of time in which heavy congestion occurs has increased. In other words, the peak hour period has been extended in the morning and afternoon along Palos Verdes Drive North.

While the eastern portion of Palos Verdes Drive North incorporates four travel lanes, the majority of this street has two lanes. Currently, the most congested section is located between the intersections of Crenshaw Boulevard and Palos Verdes Drive East.

In measuring the severity of traffic congestion on a street, a "Level of Service" (LOS) ranging from "A" to "F" is assigned (See Exhibit 3-3). Level "A" represents optimal conditions, while Level "F" indicates the most congested conditions. Two of the most congested intersections have been assessed (Palos Verdes Drive North/Rolling Hills Road and Palos Verdes Drive North/Dapplegray School Road) for the a.m. and p.m. peak hours. For the Palos Verdes Drive North/Rolling Hills Road intersection, the LOS for the a.m. and p.m. peak hours was LOS "D" and LOS "E", respectively. The LOS for the Palos Verdes Drive North/Dapplegray School Road intersection was LOS "E" for both the a.m. and p.m. peak hour. Even though these measurements were taken while Dapplegray School was still in session, traffic volumes remain high since the closure of the school.

Certain recent improvements have occurred subsequent to these measurements which affect Palos Verdes Drive North. Specifically, the signal at the intersection of Rolling Hills

Road/Palos Verdes Drive North has been modified to provide a longer green time on Palos Verdes Drive North. In addition, the repair work on Palos Verdes Drive North was recently completed, providing an alternate route for many residents on the western portion of the Peninsula. While Palos Verdes Drive North still experiences significant traffic levels, these two factors have provided some degree of reduction in traffic congestion.

The two-way peak hour traffic volume on Palos Verdes Drive North has increased 11 percent during the last 10 years, with 9 percent of this increase occurring during the last 5 years. On Pacific Coast Highway there has been an increase in the two-way peak hour volume of 16 percent over the last 10 years, with a decrease of about 12 percent occurring over the last 5 years. During the same time, Rolling Hills Road increased nearly 20 percent in the two-way peak traffic volume in the last 10 years, with about 16 percent of this increase occurring during the last 5 years. The fact that Rolling Hills Road facilitates access to Pacific Coast Highway is important in this analysis. This would tend to indicate that Rolling Hills Road has become much more desirable as a connection between Palos Verdes Drive North and Pacific Coast Highway than Crenshaw Boulevard. In comparison with Pacific Coast Highway, Palos Verdes Drive North presently carries 80 percent of the peak hour volume that is carried by Pacific Coast Highway.

To more accurately evaluate the existing impact of congestion, a comparison of travel times on Pacific Coast Highway versus Palos Verdes Drive North has been provided in Table 3-5.

TABLE 3-5
TRAVEL TIME MEASUREMENTS
Hawthorne Boulevard/Pacific Coast Highway to Western Avenue/Palos Verdes Drive North

	Morning (Westbound)	Afternoon (Eastbound)
Pacific Coast Highway/Western Avenue Route (3.40 miles)	9:55 10:47 8:33	10:46 13:52 13:28
Average Time Average Speed	9:45 21.5 mph	12:42 16.5 mph
Hawthorne Boulevard/Rolling Hills Road/Palos Verdes Dr. N. Route (4.24 miles)	8.50 10:13 8:23	12:13 12:41 11:23
Average Time Average Speed	9:09 27.8 mph	12:06 21.0 mph

While only three runs were made in each direction on each route, it can be concluded that it takes slightly less time to travel through Rolling Hills Estates on Palos Verdes Drive North than along Pacific Coast Highway. Further, even though the route through the City is 0.75 miles longer, it still takes a shorter travel time. For westbound morning traffic, it takes approximately 30 seconds less out of a 10 minute trip to travel on Palos Verdes Drive North/Rolling Hills Road/Hawthorne Boulevard than it does along Western Avenue/Pacific Coast Highway between these two end points. Similarly for eastbound afternoon traffic it takes approximately 30 seconds less out of a 12 minute trip to travel on Hawthorne Boulevard/Rolling Hills Road/Palos Verdes Drive North than it does along Pacific Coast Highway/Western Avenue between these two end points.

Travel times were also measured in straight runs between Hawthorne Boulevard and Western Avenue on both Pacific Coast Highway and on Palos Verdes Drive North. These runs were made in June of 1987. (Note: Miraleste High School was not in session in June 1987). Afternoon runs on both roadways were made on Wednesday, June 24 between 3:30 and 6:00 p.m. Similar to the two other selected routes through the area, the first run was made at the beginning of the peak hours, the second made during the middle of the peak hours and the third run at the end of the peak hours. The results and averages are shown in Table 3-6.

TABLE 3-6
TRAVEL TIME MEASUREMENTS
Hawthorne Boulevard to Western Avenue

	Morning		Afternoon	
	Eastbound	Westbound	Eastbound	Westbound
Pacific Coast Highway Route (2.75 miles)	6:21 8:53 5:53	7:55 8:47 6:33	7:02 8:20 12:40	11:49 14:38 19:17
Average Time Average Speed	7:02 23.5 mph	7:45 21.3 mph	9:21 17.6 mph	15:15 10.8 mph
Palos Verdes Drive North (3.39 miles)	6:56 8:07 6:28	6:25 7:40 7:00	8:22 7:01 8:31	7:00 8:24 13:17
Average Time Average Speed	7:10 28.4 mph	7:02 28.9 mph	7:58 25.5 mph	9:34 21.3 mph

Eastbound morning peak hour travel time between Hawthorne Boulevard and Western Avenue is approximately the same on either route. In the westbound direction during the

morning peak hour, it takes approximately 45 seconds less using Palos Verdes Drive North to travel between Western Avenue and Hawthorne Boulevard. Eastbound in the afternoon, it takes 80 seconds less to travel across on Palos Verdes Drive North. Westbound in the afternoon, it is nearly 6 minutes faster on Palos Verdes Drive North between Western Avenue and Hawthorne Boulevard. However, it is interesting to note that the volume of traffic on each street is fairly close, although Pacific Coast Highway has four lanes. This is important in that Pacific Coast Highway is designated as a State Highway and developed as a major commercial and commute route, whereas Palos Verdes Drive North is a residential street. Nevertheless, over the past 5 years, peak hour traffic has decreased on Pacific Coast Highway, while Palos Verdes Drive North has seen a 9% increase during that same period.

As schools have been consolidated throughout the Palos Verdes Peninsula additional traffic has been added to the street of Rolling Hills Estates. Palos Verdes Drive North has been directly impacted as students from the schools that closed travel this road.

Given these facts, it is apparent that many of the impacts associated with traffic congestion on Palos Verdes Drive North involve regional issues. Cooperation between various jurisdictions is also important to ensure that all cities provide assistance to resolve such concerns. In that regard, several facts regarding Pacific Coast Highway have been noted by the City Traffic Engineer. The following issues could play a significant role in minimizing congestion on both Pacific Coast Highway and Palos Verdes Drive North.

- *Pacific Coast Highway at Hawthorne Boulevard* - The City of Torrance is planning to widen Pacific Coast Highway for about 1,000 feet on both sides of Hawthorne Boulevard. When completed, three through lanes in each direction will be on Pacific Coast Highway at and through Hawthorne Boulevard.

- *Pacific Coast Highway at Crenshaw Boulevard* - The City of Torrance is considering widening Pacific Coast Highway on both sides of Crenshaw Boulevard to provide three through lanes in each direction. To accomplish these improvements the project may eliminate the existing dual eastbound and westbound left turn lanes from Pacific Coast Highway, providing only one left-turn lane eastbound and westbound. While the project is not scheduled at this time, it may occur within the next three to eight years.

- *Pacific Coast Highway Traffic Signals within the City of Lomita* - The existing traffic signals on Pacific Coast Highway in the City of Lomita are all pre-timed, operating on a fixed cycle length without regard to actual demand. Pedestrian time to cross Pacific Coast Highway is provided every cycle, whether or not

there are any pedestrians waiting to cross. Because of this and the width of Pacific Coast Highway, about 30 percent of the available green time is now being given to the side streets. Considerable congestion occurs as a result of the existing traffic signal system. Plans are now being prepared to modernize and interconnect traffic signals on Pacific Coast Highway from the western City boundary of Lomita to the Harbor Freeway. It is estimated that the green time which is now provided for the side streets will be reduced in half upon completion of this project.

- ***Pacific Coast Highway at Western Avenue*** - As part of the traffic signal improvement project, the intersection of Pacific Coast Highway and Western Avenue will be improved to provide northbound to westbound dual left turn lanes. These improvements should reduce the present delays experienced by this movement.

The improvements described above will certainly improve the present operating conditions on Pacific Coast Highway. The greatest single improvement will probably occur with the new traffic signal system through Lomita. Present operating speeds in the afternoon peak hour are about 10 miles per hour. These should improve to between 20 and 25 miles per hour upon completion of this project. The dual left turn lanes from northbound Western Avenue to Pacific Coast Highway will add needed capacity to this movement and reduce delays which these turning motorists now experience. This may encourage some northbound traffic on Western Avenue to continue north to Pacific Coast Highway rather than turn left on Palos Verdes Drive North. Each of the improvements by the City of Torrance will also provide additional capacity to Pacific Coast Highway.

In addition to the planned improvements described above, there are three other potential projects which could improve east-west capacity, on a regional basis, through this area. First, Pacific Coast Highway through Lomita is 72 feet wide between curbs. While it is understood that the City does not plan to physically widen the roadway at this time, a possible option to improve capacity involves the prohibition of curb parking during peak hours. While this roadway travels through a business district, it may be possible to accommodate the present curb parking on side streets or within off-street parking lots during peak traffic hours. If this could be done, then a third through lane in each direction could be provided. A left-hand turn signal at Pacific Coast Highway and Narbonne for northbound traffic on Palos Verdes Drive East would help reduce traffic to Palos Verdes Drive North residential areas.

In considering traffic congestion on any street, the primary concern to motorists is the resulting delay in time. Therefore, it is helpful to evaluate how much time can be saved if

certain improvements were implemented. Table 3-3 indicates that between Hawthorne Boulevard and Western Avenue on Palos Verdes Drive North, it takes a vehicle from approximately 7 to 9-1/2 minutes to travel this distance during morning and peak-hour periods. While there are no specific figures, it is estimated that if Palos Verdes Drive North were widened to four lanes, the amount of time saved would be a few minutes. It is important that the actual benefits achieved from adding lanes are weighed against the resulting impacts, before any policy direction is determined. In the case of Palos Verdes Drive North, it would appear that the benefits received from reducing travel time by a few minutes may not warrant the potential impacts on the quality of life in Rolling Hills Estates.

While the City of Rolling Hills Estates has no control over those improvements on Pacific Coast Highway being implemented, the data provided above indicates that future improvements to the highway would likely have a greater long-term effect on traffic congestion for both streets, as opposed to the improvements which could be realized by widening Palos Verdes Drive North.

TRAFFIC CONTROL

An important consideration of traffic congestion issues is the involvement of traffic control devices within the various street systems (See Exhibit 3-6). This issue has been of particular concern in discussion of Palos Verdes Drive North. Over the past several years, various improvements in the existing signals have been made to provide better traffic flow. Generally speaking, these lights have been timed to provide longer green phases on Palos Verdes Drive North. In addition, turning movements have been better coordinated to minimize the red phase on Palos Verdes Drive North. In the opinion of the Traffic Engineer, there are no traffic control device alternatives remaining which would enable any noticeable reduction in congestion on this street. It has been questioned whether coordinate timing of the signals along Palos Verdes Drive North would have any benefits; however, the Traffic Engineering indicates the signals are too far apart to effectively coordinate.

While the majority of the primary intersections in Rolling Hills Estates are currently signalized, additional signals may warrant consideration in the future, if safety standards are adversely affected. While signalization of intersections can have many positive impacts on traffic flow and safety, it can also have significant impacts on the character of a given area, especially in residential neighborhoods. With the continuing population increase in neighboring Peninsula cities, traffic volumes at most intersections will also increase over time. Given the emphasis of maintaining a rural character in Rolling Hills Estates, it is important that potential impacts of additional signals be evaluated carefully, with the understanding that public safety concerns are of primary importance.

City of
Rolling Hills Estates

GENERAL PLAN



LEGEND
- STOP SIGN
- SIGNAL
- CITY BOUNDARY

Source: Greer and Associates

DAVID EVANS AND ASSOCIATES, INC.

INTERSECTION CONTROLS

Exhibit 3-6

When evaluating the need for signalization, the City reviews specific technical data pertaining to traffic flow, accident rates, intersection design and other factors. If this data indicates that a particular intersection exceeds acceptable standards or levels of service, consideration is then to be given to the installation of signals. Since a primary goal of the City is to preserve the rural community character, signalization of additional intersections should be given priority when it is clear that a signal is needed for protection of public safety and will provide a beneficial improvement to the community.

In some cases, the technical data may indicate that an intersection meets all safety standards, however, it exceeds certain traffic efficiency levels. In these situations, the City must carefully evaluate the potential impacts on the rural character of the City if additional signals are added versus the benefits which could be gained in improved traffic flow.

TRAFFIC SAFETY

The study prepared by Greer and Co. in 1983, provided a comprehensive traffic safety analysis of the City's street systems. While this report provided data to establish many City policies regarding traffic and safety issues, additional data and analysis has been provided to more accurately reflect current conditions and trends.

To assess the trends in traffic safety, average yearly accident rates were consulted for the years 1985-1987. The purpose of this analysis, (summarized in Table 3-7) is to give a better indication of the impacts of additional traffic volumes versus the benefits gained in various street improvements occurring since the preparation of the Greer Report.

TABLE 3-7
ACCIDENT SUMMARY

Type of Accident	Average Yearly Number of Accidents	
	1980 - 1982	1985 - 1987
Mid-block collisions	54	58
Intersection collisions	50	57
Fixed object collisions	23	19
Source: City of Rolling Hills Estates. 1989		

The 1983 Greer study notes that the accident rate experienced in Rolling Hills Estates is well below the average in Los Angeles County. Nevertheless, there were certain locations which warranted in-depth review in the attempt to improve safety conditions for these areas.

The Hawthorne Boulevard/Palos Verdes Drive North intersection has experienced the greatest number of accidents over the last several years with approximately 10 incidents reported per year. Most of these have involved rear end collisions. The lack of early visibility of traffic signals, as well as the awkward geometry of this intersection, appear to be the major contributing factors to these problems.

Several recommendations were made in the Greer study, most of which involved means for providing earlier warnings to motorists of the upcoming intersection. They included the following:

1. Install advance warning signs (W41) and yellow flashers on the southbound and eastbound approaches. Add the yellow flasher to the existing "signal ahead" (W41) sign on the northbound approach.

2. Install pavement grooving on the northbound and eastbound approaches to reduce skid potential.

3. Install raised reflectorized pavement markings on all four approaches. Due to climatic conditions, such as ground fog, raised reflectorized markings should be used throughout the City.

4. Provide painted channelization for the separate right-turn lanes eastbound and westbound.

5. Provide turning guidelines for left-turn movements on northbound and southbound approaches.

6. Implement a one-second all-red phase between directional through phases to eliminate potential right-angle conflicts.

7. Consider widening the eastbound approach to improve driver visibility on the intersection approach and to reduce the abrupt transition from one lane to four lanes on the approach.

Although Items 3, 4, 5, and 6 listed above have been implemented, the accident rate has remained basically unchanged. In addition to these recommendations, the free right-turn lane on eastbound Palos Verdes Drive North has been eliminated. This additional improvement would address Item 7.

Finally, new loop detectors and larger signal heads were installed in 1986. Following the installation of these improvements, there was no noticeable change in the yearly accident rate. While the accident rate at this intersection is not excessive, it is difficult to determine whether any noticeable decrease in the accident rate can be accomplished with the implementation of all the above-mentioned recommendations.

The City's Traffic Engineer has also reviewed and examined the arrestor beds on Hawthorne Boulevard which were originally constructed under the State Department of Transportation (CalTrans) design standards. Although CalTrans has revised their standards for the construction of new arrestor beds, the Traffic Engineer concludes that the existing arrestor beds are adequate; however, should any modifications be made in the future, consideration for updating the design should be given at that time.

Palos Verdes Drive North/Crenshaw Boulevard: The accident rate at this intersection has increased from approximately 3 per year to 8 per year. While there is no obvious accident pattern, the majority of accidents seem to be a result of rear-end collisions.

While the Greer study did not identify any significant design problems with this intersection, the most notable safety concern seems to be related to the steepness of northbound Crenshaw Boulevard. This concern has been especially evident with respect to truck use in this direction. The most severe accidents occurring at this intersection have been a result of trucks losing control on the downhill grade. The City is limited in its abilities to implement improvements in this area, as only the intersection is within the jurisdiction of the City. The section of Crenshaw Boulevard between Palos Verdes Drive North and Silver Spur Road is within the jurisdiction of Los Angeles County. Nevertheless, the City's recent adoption of Ordinance No. 504, prohibits all trucks over 6,000 lbs. from traveling northbound through the intersection of Silver Spur Road and Crenshaw Boulevard. Such trucks are required to use Hawthorne Boulevard, where arrestor beds are available for emergency purposes. While this Ordinance should help minimize the number of accidents on Crenshaw and Palos Verdes Drive North, cooperation from Los Angeles County in improving safety on Crenshaw Boulevard will also help improve traffic safety on this stretch of roadway.

Some concern has also been expressed with the portion of Crenshaw Boulevard north of Palos Verdes Drive North. With the exception of the intersection at Palos Verdes Drive North, Crenshaw Boulevard is within the jurisdiction of Los Angeles County. There are several curb cuts which serve several properties within the City of Rolling Hills Estates. These include the Methodist Church, Country Day School, City Stables, and City Hall. Given the fairly high speeds of travel on Crenshaw Boulevard, some attention should be given to maximizing safety for ingress and egress movements along this street. Specific

improvements which could be considered by Los Angeles County include the provision of deceleration and/or acceleration lanes to separate turning movements in and out of these driveways from through traffic.

Palos Verdes Drive North/Palos Verdes Drive East: This intersection has undergone improvement since 1983, when an average of 4 accidents per year occurred. While no improvements to this intersection were recommended in the Greer Study, new loop detectors have been installed for each direction of traffic. Following these improvements in 1985, only one accident has occurred in the last two years.

Palos Verdes Drive North/Rolling Hills Road: There has been a slight increase in the number of accidents at this intersection from about 3 collisions per year (1980-1983) to approximately 5 accidents per year (1985-1986). However, it should be noted that from 1982 to 1987, daily traffic volumes have increased from approximately 8,000 to 10,000 vehicles (20%) It would appear that most of these accidents have been rear end collisions, resulting from the stop and go traffic during peak commute hours.

Palos Verdes Drive North/Silver Spur Road: From 1980-1982, this intersection experienced 4 accidents. In addition, traffic volumes measured 14,280 vehicles per day on Silver Spur Road, south of the intersection, and 16,100 vehicles on Palos Verdes Drive North. Based on this information, the Greer Report concluded that safety standards and traffic flow were acceptable and therefore no modifications were recommended. From 1985-1987, only one (1) accident was recorded at this intersection. Recent traffic volumes have increased to 16,870 vehicles (15% increase) per day on Silver Spur Road and 17,300 vehicles (7% increase) on Palos Verdes Drive North, warranting consideration for a signal at this intersection. While some delays in traffic flow are experienced at peak hour periods, traffic safety standards have been well maintained. Given the City's concern over the potential impact of additional signals on its rural character and the existing level of safety provided, current conditions do not appear to warrant signalization of this intersection.

Palos Verdes Drive East Realignment: At the northerly end of Palos Verdes Drive East, the street follows the boundaries of the Chandler Quarry site, resulting in sharp curves at this point. This section of street has posed safety concerns to the City, especially given the number of trucks which must negotiate these curves. Under an agreement with Chandler and the City, the Chandler Quarry recently dedicated a new right-of-way section across the quarry property, enabling a straighter section of road to be constructed. Although this realigned road will eliminate any dangerous curves, careful consideration must also be given to the resulting speeds along Palos Verdes Drive East. Since the road will be straighter, vehicles could increase their speed. While final design plans have not been approved, the

Traffic Safety Committee, City Traffic Engineer, and Sheriff's Department will work closely on the design to ensure safe conditions for all vehicles, including those accessing surrounding residential access.

Secondary Access on Major Arterials: The City has expressed concern with the amount of curb cuts and access points along arterials including Palos Verdes Drive North, Palos Verdes Drive East, Crenshaw, and Hawthorne, and how curb cut access affects safety and traffic efficiency needs of the City.

Many residences currently have primary access on arterial streets. This condition is particularly notable on Palos Verdes Drive North, where a significant number of residences have been developed fronting on this street. The City is primarily concerned about adding new curb cuts for future developments with frontage on an arterial street. Consolidating these curb cuts or pursuing alternative routes for new properties should be considered to help mitigate these safety concerns.

The City has also identified several properties with primary access on a secondary or local street, and additional frontage on arterials. While these secondary forms of access typically serve equestrian areas in the rear yards, they are also used for vehicular access. Before any new curb cuts are permitted on arterials, the City Council should review such proposals to consider the potential safety impacts to vehicular, pedestrian, equestrian and bike traffic. In this review, alternative access routes should also be considered if access onto these arterials cannot be safely accomplished.

In many cases, a secondary point of access may be necessary to serve equestrian facilities which would otherwise be inaccessible from the primary access point. Steep topography and inadequate width between homes and property lines can significantly impact accessibility to some equestrian areas. Therefore, it is recommended that the City Council review requests for secondary access to assess the particular hardships of individual properties. Where these conditions exist, secondary access may be considered.

The City's general policy has been to minimize the number of access points on arterial streets. Additional points of access along these arterials not only pose potential safety hazards for vehicles making various turning movements, but also affects the flow of traffic on those streets most heavily travelled. By consolidating the points of ingress and egress along these streets, traffic flow is improved while minimizing potential points of conflict with residential access and major arterials.

Bridle Trails: The most significant safety concerns related to the equestrian activity results from the interaction between vehicles and horses. Such interaction most commonly occurs

marked travel lanes to accommodate these riders. In addition, the Traffic and Safety Committee has expressed concern with the small asphalt berms which separate traffic lanes from the bike lane area, as they pose potential hazards to riders rather than providing safe separation from vehicles. Some of these features have been eliminated along Palos Verdes Drive East; however, there are intermittent areas on Palos Verdes Drive North still in existence.

Since these paths require approximately four feet of width, many existing streets can accommodate these bike lanes without disruption to existing travel lanes. In addition, the cost of providing these paths can be much less than off-street paths. Therefore, it would appear that on-street paths would not only service the Peninsula-wide needs of bike riders, but would be the most feasible alternative to implement as well.

Pedestrian Trails: There are two basic types of pedestrian traffic that should be considered in Rolling Hills Estates. Within residential areas, the off-street bike paths also serve as pedestrian paths. School children, joggers and others frequently use these paths as they provide a safe and enjoyable way of accessing various points of interest.

The second form of pedestrian activity relates to the commercial areas, specifically the Peninsula Center. With the concentration of retail centers in this area, there is opportunity to encourage pedestrian activity among them. In 1978, the City adopted policy guidelines regarding the development of Peninsula Center. With respect to pedestrian traffic, this document encouraged the development of pedestrian paths which linked commercial centers as well as open space/plaza areas.

The City has required the installation of various elements to enhance pedestrian activity. Brick pavers have been provided on many sidewalks, along with various street furniture items such as the 1890 style lights and benches (as recommended in the Peninsula Center Design Standards). In addition, the incorporation of street trees and other landscaping have helped provide a human scale to these paths. Such features should be encouraged as part of any new commercial development with the Peninsula Center. The continued use of these design elements in new development can encourage additional pedestrian traffic throughout the Peninsula Center.

Pedestrian Crossings: Most of the City's intersections incorporate designated crossing areas, many of which are controlled by signals. In addition, several areas in the City serve as school crossings. At some locations, such as Rolling Hills High School, pedestrians are aided by signals. At other locations such as Rancho Vista School pedestrians cross at unsignalized intersections. In these situations, the use of school crossing guards is important to ensure pedestrian safety, especially on arterial streets such as Palos Verdes Drive North.

While signalized intersections provide a high degree of safety at pedestrian crossings, additional safety measures, such as signage, pavement striping, and crossing guards, should be considered at remaining school crossing sites. The use of crossing guards not only provides safer conditions for students, but enables more organized and efficient traffic flow.

PENINSULA CENTER COMMERCIAL DISTRICT

Several shopping centers, as well as a variety of retail stores and offices make up the majority of the commercial area known as the Peninsula Center. This area is bounded by Crenshaw Boulevard and Hawthorne Boulevard to the south and north, respectively, with Indian Peak and Silver Spur Roads providing the western and eastern boundaries, respectively.

With the concentration of commercial activity, the primary concern is the ability to accommodate shoppers and other patrons as efficiently and as safely as possible. While the traffic volumes shown on Table 3-1 indicate that traffic flow has been operating at acceptable levels, the provision of adequate parking facilities can have a significant affect on traffic efficiency in commercial areas.

Not only is it important to provide an adequate number of off-street parking spaces for each commercial use, but the design of these parking lots should incorporate appropriate sized parking stalls, aisle widths and driveway entrances. By addressing these specific design elements, a parking lot will become more accessible, convenient, and safer to use.

To increase traffic flow efficiency along the commercial streets within the Peninsula Center, the City's Traffic Engineer has indicated that a reduction of on-street parking spaces can help. The various movements associated with vehicles entering and exiting on-street parking spaces have a direct impact on traffic flows as well as vehicular and pedestrian safety. If adequate parking facilities are provided as described above, the demand for on-street spaces can be minimized.

It is also important to consider that if off-street parking lots can maintain a high degree of convenience, especially for the retail patron, these shops can be more attractive areas to visit as they become more accessible, safe, and convenient for the shoppers. Therefore, such objectives can provide benefits to the merchants of the City, while improving traffic conditions in the Commercial District. To help achieve this objective, the City would encourage existing shopping centers and retail areas to upgrade parking lots to current standards. This includes the provision of proper circulation patterns.

With a majority of the Peninsula Center currently developed, it is not anticipated that any substantial growth in this commercial area will occur. However, as the surrounding Peninsula population increases, it is likely that additional traffic will be added to the Peninsula Center streets. Therefore, the provision of adequate off-street parking will still be important to future traffic efficiency and possibly the economic vitality of this area.

PUBLIC TRANSPORTATION

In discussing ways of mitigating traffic congestion on the City's street system, the use of public transportation plays an important role. The Peninsula Transit Authority (PTA), which includes the Seniors Dial-A-Ride program, along with the multi-jurisdictional PV Transit System and the RTD bus service and Municipal Area Express (MAX) make up the public transportation system in Rolling Hills Estates. MAX is a limited stop commuter express, providing morning and afternoon service between the Palos Verdes Peninsula and the El Segundo employment center. In addition, many larger employment centers, especially the aerospace industries, operate van pool services, which also help to minimize the number of passenger vehicles on City streets. Unquestionably, the encouragement of these alternative transportation programs offer one means for reducing overall traffic congestion.

With a fairly high concentration of Peninsula residents employed at various aerospace companies, the demand for van pool service would appear to be present. However, to ensure sufficient usage, the accessibility of vans must be such that they minimize inconvenience to the commuter. This means having various pick-up points throughout the Peninsula. However, if riders must drive to these points, parking accommodations must be addressed. While many riders currently park at shopping centers or other large parking lots, such practices can cause conflicts with patrons using the parking lot. Therefore, it is important to consider park and ride provisions for van pool commuters. While most existing parking lots have no surplus spaces beyond what is required by Code for their own use, arrangements between the owners of large parking facilities and the van pool operations could be explored to accommodate long term parking provisions while minimizing conflict with the demand for spaces.

While the van pool program has been established to serve commuters, the PV Transit system primarily serves the needs of Peninsula residents in getting to destinations within the Peninsula. Both the PV Transit and the Dial-A-Ride program offer a means of transportation to seniors, children, and the physically disabled. These systems provide access to all retail and commercial centers, recreation areas, and other various points of interest on the Peninsula. In addition, PV Transit offers connections to other transportation systems, including RTD, which serves a wider regional area, including commute routes. Servicing those areas in demand and providing timely service will help ensure that these systems are

utilized. Likewise, accessibility and frequency of service will be critical factors in encouraging and increasing use by commuters. If these alternative means of transportation are competitive in getting the user to his/her destination in a timely and convenient manner, then these forms of public transportation can become an effective tool for reducing traffic congestion as well as offering an effective means of transportation for those with no other alternatives.

City of
Rolling Hills Estates



GENERAL PLAN

Housing Element

SECTION 4.1
INTRODUCTION TO THE HOUSING ELEMENT

PURPOSE OF ELEMENT

The California State Legislature has identified the attainment of a decent home and a suitable living environment for every Californian as the State's major housing goal. In 1967, recognizing that local planning programs play a major role in achieving this goal, and to assure that local planning programs effectively implement statewide housing policy, the California legislature made it mandatory for each county and general law city in the State to include a Housing Element as part of their adopted General Plans. Section 65302(c) of the Government Code requires that the Housing Element include "standards and plans for the improvement of housing and for the provision of adequate sites for housing." The Housing Element must also "make adequate provision for the housing needs of all segments of the community" and be prepared according to guidelines established by the State Department of Housing and Community Development.

In 1977, the Department of Housing and Community Development initially established guidelines for the preparation of Housing Elements. These guidelines were subsequently revised and, in 1980, became statutory requirements with the enactment of AB 2853. This legislation also indicates that the guidelines are advisory in nature.

The Government Code specifies the intent of the legislature to insure that counties and cities actively participate in attaining the state housing goal and sets forth specific components of a Housing Element. These include the identification and analysis of existing and projected housing needs, resources and constraints, a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement and development of housing; identification of adequate sites for housing; and adequate provision for the existing and projected needs of all economic segments of the community.

State law requires Housing Elements to be updated at least once every five years. The City of Rolling Hills Estates has prepared the following updated Housing Element in compliance with the July 1, 1989 deadline for communities within the jurisdiction of the Southern California Association of Governments (SCAG). This Housing Element will be updated again in 1994.

Section 65581 of the California Government Code explains that it is the intent of the Legislature in enacting Housing Element law to assure that local jurisdictions recognize their responsibilities in contributing to the state housing goal of attaining decent housing and a suitable living environment for every California family. The Housing Element of the Rolling Hills Estates General Plan is an official policy statement of the City regarding the type and

amount of housing to be provided in the community and its contribution to the achievement of this goal. It describes existing conditions and constraints as well as opportunities for improving and expanding the supply of housing.

The Housing Element is intended to serve as a guide for local decision-making bodies when dealing with housing-related issues. Like other elements of the General Plan, it is comprehensive, long-range and general in nature. It is comprehensive in that it considers all geographic parts of the City and the needs of all economic segments of the community. The Element is long-range in that it addresses both immediate concerns and housing needs projected over an extended period of time.

Section 65300.5 of the California Government Code requires internal consistency among the various elements of a General Plan, stating that they must comprise an integrated and internally consistent and compatible statement of policies.

PUBLIC PARTICIPATION

The City Council appointed a General Plan Advisory Committee (GPAC) to assist City staff and the project team in the preparation of the General Plan Update. This committee met once or twice a month during the formulation of the goals and policies and the land use plan. The GPAC first met in October of 1990 and continued to meet at scheduled intervals for the following year or more. During the formulation of the goals and policies and the land use plans, the Committee met every other week. In addition, special Saturday meetings were held to allow Committee members to visit key areas of the City where changes in land use were anticipated. All of the GPAC meetings were open to the public and advertised as such. In addition, the City Council and Planning Commission held a series of joint meetings to review and discuss the Committee's recommendations. Finally, the City prepared a video that was aired over the local cable television network which explained the general plan update to the public.

SECTION 4.2
HOUSING ELEMENT GOALS AND POLICIES

The primary focus of the Housing Element is to meet existing and anticipated housing needs and to protect the vitality of existing residential neighborhoods in Rolling Hills Estates. The goals and policies of the Housing Element are aimed at preserving the quality of the living environment, protecting the lower density character of the area, conserving the existing housing stock, addressing local and regional housing needs, providing for the City's share of affordable housing and providing housing assistance to residents.

Issue: Housing Environment

The residents are proud of their community and the fact that it is perceived as a very desirable place to live. As a result, the maintenance of the neighborhoods has been part of the City's housing program for past decades and will continue to be emphasized in this General Plan Update.

GOAL 1: Maintain a decent and satisfying home environment for Rolling Hills Estates residents.

Policy 1.1 Encourage community participation in housing programs and projects in the City. Actively pursue participation in housing issues affecting the City's elderly population.

1.1.1 Implementation Measure: The City will establish Community Information Centers in order to publicize and popularize housing programs available. These Community Information Centers will consist of small display racks for public information brochures with a wide range of topics of importance to the community. The Community Information Centers will be located in such places as the Public Library and City Hall.

Timing: Fiscal year 1994
Agency: Planning Department/City Manager
Funding: General fund

1.1.2 Implementation Measure: Prepare a brochure describing the City's Second Unit Ordinance for elderly family members.

Timing: Fiscal year 1993
Agency: Planning Department/City Manager
Funding: General fund

Policy 1.2 Pursue appropriate public and private sources for financial support to provide housing for the elderly residents in the City.

1.2.1 Implementation Measure: City staff will continue to review current housing assistance programs (both Federal and State) to determine availability and appropriateness for use in providing low cost senior housing in the City. The focus of this effort will be directed towards identifying public and private financial support which individual elderly property owners can utilize.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

1.2.2 Implementation Measure: Prepare a brochure and publish an article in the City's Newsletter which clearly describe the housing programs available to the City's residents.

Timing: Fiscal year 1993
Agency: Planning Department/City Manager
Funding: General fund

Policy 1.3 Provide an outreach program to inform the City's homeowners of the Second Unit Ordinance allowing development of attached second units for occupancy by elderly family members.

1.3.1 Implementation Measure: Publicize and popularize the provisions of the Second Unit Ordinance throughout the City's newsletter and public information brochures.

Timing: Fiscal year 1993
Agency: Planning Department/City Manager
Funding: General fund

1.3.2 Implementation Measure: Investigate tax incentives that can be used to promote the level of second unit housing. Once the investigation is complete, the information will be included into the newsletter and brochure describing the Second Unit Ordinance.

Timing: Fiscal year 1993
Agency: Planning Department/City Manager
Funding: General fund

Policy 1.4 The City will inform its senior population about the availability of reverse mortgages.

1.4.1 Implementation Measure: Provide educational brochures, as well as a referral service to those seniors who are interested in the Reverse Mortgage program.

Timing: Fiscal year 1993
Agency: City Manager
Funding: General fund

Policy 1.5 Ensure that new housing is compatible with established development and conformity standards established by the City.

1.5.1 Implementation Measure: Continue to implement the Neighborhood Compatibility Ordinance in the review of proposed residential development and assure that all development is consistent with the development standards included in the Land Use Element while providing a broad range of housing types to meet the present and future needs of the community.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

1.5.2 Implementation Measure: Minimize potential environmental impacts by approving residential developments only after adverse effects can be satisfactorily mitigated.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.6 Encourage sound and logical residential growth while working towards providing more affordable housing.

1.6.1 Implementation Measures: Designate sites within Chandler Quarry where residential development and below market rate housing can be provided.

Timing: Fiscal year 1995
Agency: Planning Department
Funding: General fund

1.6.2 Implementation Measure: Ensure that the provision of housing opportunities is compatible with development standards established by the City.

Timing: As developments are proposed
Agency: Planning Department
Funding: General fund

1.6.3 Implementation Measure: Ensure minimal environmental impacts by selecting affordable housing sites and logical housing growth where adverse effects can be satisfactorily mitigated.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

1.6.4 Implementation Measure: Work to implement the City's five year goal outlined in the Housing Plan through the implementation of the land use policy.

Timing: Fiscal year 1994
Agency: Planning Department/City Manager
Funding: General fund

Policy 1.7 Limit the City's growth if the growth will result in adverse traffic impacts, pollution, excessive water use or other adverse effects.

1.7.1 Implementation Measures: Require that the initial reviews and the environmental review process contain a thorough analysis of traffic impacts, pollution potentials, and water use to assist in the decision process of a project.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

1.7.2 Implementation Measure: Require that appropriate mitigation and monitoring measures of traffic, pollution, and water usage are put into place.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.8 Restrict the development of gated private developments in the City.

1.8.1 Implementation Measure: Gates or other structures which restrict access on public or private streets, alleys or easements will generally not be permitted. These guidelines will be considered in neighborhood conformity review of future development in order to discourage gated communities

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Issue: Rural Residential Character

City residents have continuously sought to preserve the character of the area as it existed more than 25 years ago. Despite development pressures, Rolling Hills Estates remains a community with lower density and larger lot development, unlike urban areas.

Goal 2: Require future housing developments to be sensitive to the unique natural environment and rural character of Rolling Hills Estates.

Policy 2.1 Require architectural and landscape designs to respect and be consistent with the character of the City.

2.1.1 Implementation Measure: Continue to implement the Neighborhood Compatibility Ordinance in the review of proposed residential development and assure that all development is consistent with the Development Standards included in the Land Use Element while providing a broad range of housing types to meet the present and future needs of the community.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.2 Continue to implement, and where appropriate, expand the provisions of the Neighborhood Compatibility Ordinance in conjunction with established

development standards to ensure new residential developments are compatible with existing neighborhoods.

2.2.1 Implementation Measure: Continue to review, amend and implement the Neighborhood Compatibility Ordinance in the review of proposed residential development while continuing to provide a broad range of housing types to meet the present and future needs of the community.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.3 Future development in the City must be consistent with the quality and aesthetics of existing developments.

2.3.1 Implementation Measure: Continue to implement the Neighborhood Compatibility Ordinance in the review of proposed residential development.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.4 Maintain the ranch style and lower density rural character in those neighborhoods where this is appropriate.

2.4.1 Implementation Measure: Continue to review and amend the Neighborhood Compatibility Ordinance to ensure that the ordinance is implemented fairly and without ambiguity while continuing to provide a broad range of housing types to meet the present & future needs of the community.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

2.4.2 Implementation Measure: Identify the neighborhoods where the ranch style architecture and lower density rural character should be implemented, as a part of and in conjunction with the Neighborhood Compatibility Ordinance revision.

Timing: Begin study in 1992
Agency: Planning Department
Funding: General fund

Policy 2.5 Encourage the preservation and maintenance of those amenities that contribute to the City's rural character.

2.5.1 Implementation Measure: Continue to review and amend the Neighborhood Compatibility Ordinance to ensure that the ordinance is implemented fairly and without ambiguity.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.6 Encourage the preservation of the natural terrain when considering new development.

2.6.1 Implementation Measure: Amend the Grading Ordinance and assure that all new development within the City is in conformance with it.

Timing: Fiscal year 1993
Agency: Planning Department
Funding: General fund

2.6.2 Implementation Measure: Prepare a brochure to be made available to developers and property owners to provide them with the guidelines and an overview of the City's policy regarding grading and the revised Grading Ordinance.

Timing: Begin project in 1993
Agency: Planning Department/City Manager
Funding: General fund

Issue: Affordable Housing

The increasing cost of housing has left many households in the region with inadequate or inappropriate housing. The provision of affordable housing will allow the City to respond to the needs of a special group of households.

Goal 3: Provide affordable housing units in the City where appropriate.

Policy 3.1 Designate appropriate sites in the City where housing below the market rate can be provided as required by State law.

3.1.1 Implementation Measure: Implement the Chandler Reuse Program as stated in this document.

Timing: As developments are proposed
Agency: Planning Department
Funding: General fund

Policy 3.2 The City will make every effort to achieve its allocation for affordable housing, as required by state law, which provides for a minimum of 2 units for very low income households; 3 units for low income households; and 3 units for moderate income households.

3.2.1 Implementation Measure: Implement the Chandler Reuse Program as stated in Section 4.3 of this Element.

Timing: As developments are proposed
Agency: Planning Department
Funding: General fund

Policy 3.3 Ensure that affordable units are compatible in character and style with the existing development in the City.

3.3.1 Implementation Measure: Continue to implement the Neighborhood Compatibility Ordinance in the review of proposed residential development and assure that all development is consistent with the Development Standards included in the Land Use Element while continuing to provide a broad range of housing types to meet the present and future needs of the community.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

3.3.2 Implementation Measure: All "Granny Flats" must be compatible in style with the primary residence pursuant to the Neighborhood Compatibility Ordinance.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 3.4 Continue the implementation of the City's Second Dwelling Unit Ordinance to allow affordable senior housing while ensuring that the character and compatibility with existing developments is maintained.

3.4.1 Implementation Measure: The "Granny Flat" Ordinance will be reviewed periodically to assure that it is not an obstruction to the development of affordable housing in the City.

Timing: Ongoing
Agency: Planning Department
Funding: General fund

Issue: Housing Conservation

The majority of the City's housing stock is over 20 years old with only 4.5% of the stock constructed in the past 10 years. Conservation through rehabilitation and maintenance will extend the life of these units and will keep the environment attractive.

Goal 4: Conserve, preserve and rehabilitate the existing housing stock through the enforcement of standards, regulations, codes and procedures established by the City.

Policy 4.1 Encourage the conservation and rehabilitation of existing units in compliance with existing zoning and environmental standards.

4.1.1 Implementation Measure: Staff code enforcement efforts will continue to identify properties that are out of compliance with zoning and building code standards in order to assure that properties in the City are well maintained.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

4.1.2 Implementation Measure: A brochure will be provided to the public to identify the common code enforcement violations in the City. These will be distributed

through the Community Information Centers, at the City's public meetings and through the City's Homeowner's Associations.

Timing: Begin project in 1993
Agency: Planning Department/City Manager
Funding: General fund

4.1.3 Implementation Measure: Current staffing level for code enforcement will be maintained in terms of budgeted hours and number of positions as funding allows.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 4.2 Provide effective code enforcement and education measures to make residents aware of the cost efficiency of rehabilitation.

4.2.1 Implementation Measure: A brochure will be provided to the public to identify the common code enforcement violations in the City. These will be distributed through the Community Information Centers, at the City's public meetings and through the City's Homeowner's Associations.

Timing: Begin project in 1993
Agency: Planning Department/City Manager
Funding: General fund

4.2.2 Implementation Measure: Current staffing level for code enforcement will be maintained in terms of budgeted hours and number of positions as funding allows.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

4.2.3 Implementation Measure: Provide information to the public through the public access television channel to increase public awareness.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 4.3 Explore public and private financing which could contribute to the rehabilitation and improvement of existing housing.

4.3.1 Implementation Measure: City staff will review current housing assistance programs (both Federal and State) to determine availability and relevance for use in providing assistance for rehabilitation of existing housing in the City. The focus of this effort will be directed towards identifying assistance programs which owner-builders can utilize in order to receive technical assistance to maintain their current housing status while upgrading the unit to current standards.

Timing: Immediate and ongoing
Agency: Finance Department/Planning Department
Funding: General fund

4.3.2 Implementation Measure: Investigate State and Federal assistance programs in order to establish low interest funds for owner rehabilitation programs.

Timing: Immediate and ongoing
Agency: Finance Officer/Planning Department
Funding: General fund

4.3.3 Implementation Measure: Prepare a brochure which clearly describes the housing programs available to the City's residents.

Timing: Fiscal year 1994
Agency: Planning Department/City Manager
Funding: General fund

Policy 4.4 Encourage property maintenance to prevent deterioration, improve residential aesthetics and public safety, and to promote water conservation and energy conservation.

4.4.1 Implementation Measure: Provide information to the public through the public access television channel for public awareness.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

4.4.2 Implementation Measure: Coordinate with the Metropolitan Water Department and the Southern California Water Service to assure that water conservation efforts are adhered to by the City's residents.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

4.4.3 Implementation Measure: Continue to enforce State energy conservation laws.

Timing: Immediate and ongoing
Agency: Planning Department/Building and Safety Department
Funding: General fund

4.4.4 Implementation Measure: Prepare a brochure to inform the City's residents of energy and water-conserving fixtures and measures which can be adapted into existing housing to conserve non-renewable fuels and save money.

Timing: Fiscal year 1993
Agency: City Manager
Funding: General fund

4.4.5 Implementation Measure: Provide pertinent information through public television access to the City's residents about Southern California Edison's energy audits which pinpoint specific areas in a residence which are responsible for energy losses to remedy energy inefficiency.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 4.5 Enforce City maintenance standards for building and landscaping through nuisance abatement procedures.

4.5.1 Implementation Measure: Information will be provided to the public to identify the common code enforcement violations in the City. For example brochures may be distributed through the Community Information Centers, at the City's public meetings and through the City's Homeowner's Associations. Information will be provided to realtors to be provided to prospective home buyers.

Timing: Fiscal year 1993
Agency: Planning Department/City Manager
Funding: General fund

4.5.2 Implementation Measure: Current staffing level for code enforcement will be maintained in terms of budgeted hours and number of positions as funding allows.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Issue: Housing Needs

As determined from historic growth patterns, the City's household population will increase by 30 units within the five-year planning period (1989-1994). This compares with 30 units that the Southern California Association of Governments project for the City. Housing programs should plan for the provision of adequate housing to serve these future residents.

Goal 5: **The City will work to provide adequate housing to meet the current and anticipated needs of the community.**

Policy 5.1 Recognize the age distribution of the population and residential patterns in the community and encourage a broad range of housing types to meet these needs.

5.1.1 Implementation Measure: Revise the Zoning Map to reflect the Land Use Policy and implement the mixed-used overlay designation as a means to provide additional housing opportunities to senior citizens and first-time homebuyers.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

5.1.2 Implementation Measure: Implement the General Plan Land Use Policy in order to provide a variety of housing types and opportunities for an adequate amount of below-market rate housing, as well as housing for a broad range of ages while preserving the rural character and neighborhood compatibility in the City.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 5.2 Encourage a variety of housing types in terms of structural, economic and social considerations while preserving the rural character of the area.

5.2.1 Implementation Measure: Implement the Chandler Reuse Program as described in Section 4.3 of this Element.

Timing: When a development is proposed
Agency: Planning Department
Funding: General fund

5.2.2 Implementation Measure: Continue to implement the Neighborhood Compatibility Ordinance in the review of proposed residential development.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

5.2.3 Implementation Measure: Implement the General Plan Land Use Policy in order to provide a variety of housing types and opportunities for an adequate amount of below-market rate housing, as well as housing for a broad range of ages while preserving the rural character and neighborhood compatibility in the City.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 5.3 Adopt land use regulation which facilitates the provision of a variety of housing opportunities.

5.3.1 Implementation Measure: Amend the Zoning Ordinance to reflect the guidelines included in the General Plan.

Timing: Fiscal year 1993 - 1995
Agency: Planning Department
Funding: General fund

5.3.2 Implementation Measure: Assure consistency with the Neighborhood Compatibility Ordinance and the Land Use Element.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

5.3.3 Implementation Measure: Implement the General Plan Land Use Policy in order to provide a variety of housing types and opportunities for an adequate amount of below-market rate housing, as well as housing for a broad range of ages while preserving the rural character and neighborhood compatibility in the City.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 5.4 Work to provide below market housing for senior citizens and families just entering the housing market with young children.

5.4.1 Implementation Measure: Enforce the "Granny flat" Ordinance. When property owners are constructing second units, assure that the ordinance is followed.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 5.5 Work to provide an additional 30 housing units, including 8 units for lower income households, in accordance with the Regional Housing Needs Assessment of SCAG.

5.5.1 Implementation Measure: Implement the General Land Use Policy and the Chandler Reuse Program as outlined in this Housing Element.

Timing: As developments are proposed
Agency: Planning Department
Funding: General Fund

5.5.2 Implementation Measure: The City will continue to implement the "Granny Flat" Ordinance.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Issue: Regional Housing Needs

The City's housing market is not independent of the regional demand and needs. To address its fair share of regional housing needs, the City is required to consider the provision of housing to meet regional needs as well as local growth (Sections 65581/65584 of the Government Code).

Goal 6: Solicit and advocate regional cooperation in realizing regional housing needs.

Policy 6.1 Provide continued cooperation between the City and adjacent cities in the development of regional housing programs and homeless services.

6.1.1 Implementation Measure: Continue to work with the adjacent City jurisdictions in order to promote low cost housing and to resolve the housing problems of the poor and homeless.

Timing: Immediate and ongoing
Agency: Planning Department/City Manager
Funding: General fund

6.1.2 Implementation Measure: Initiate a quarterly meeting with the Planning staff of the other peninsula jurisdictions to discuss planning issues as a means to communicate about specific topics such as future development projects, General Plan amendments and other ongoing environmental reviews.

Timing: Fiscal year 1993 - 1995
Agency: Planning Department
Funding: General fund

6.1.3 Implementation Measure: In the event that homeless persons seek assistance from the City, they would be referred to the organizations listed in Appendix "A" for assistance.

Timing: Immediate and ongoing
Agency: Planning Department/City Manager
Funding: General fund

6.1.4 Implementation Measure: Continue attending Southwest Area Planning Conference (SWAPC) monthly meetings.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 6.2 The City will make every effort to meet the five-year housing goals.

6.2.1 Implementation Measure: The City's staff will conduct an annual review to assess the number of units constructed to assure that the City's Ordinances do not impede the development of new housing in the City.

Timing: Immediate and Ongoing
Agency: Planning Department
Funding: General fund

Issue: Housing Assistance

Housing programs should be receptive of the needs of special household groups in the City. These special needs groups include the elderly, the low and moderate income households, minorities, female-headed households, and the handicapped while recognizing that market constraints (land value, development costs, and availability of land) will make this difficult.

Goal 7: Make every effort to provide housing assistance to residents of the City in need of such assistance.

Policy 7.1 Inform the senior citizen population about the availability of reverse mortgages through the City's newsletter.

7.1.1 Implementation Measure: Provide educational brochures, as well as a referral service to those seniors who are interested in the Reverse Mortgage program.

Timing: Fiscal year 1994
Agency: City Manager
Funding: General fund

Policy 7.2 Publicize the provisions of the "Granny Flat" housing ordinance through the City newsletter.

7.2.1 Implementation Measure: Prepare a brochure describing the City's Second Unit Ordinance for elderly family members.

Timing: Fiscal year 1993
Agency: Planning Department/City Manager
Funding: General fund

Policy 7.3 Enforce fair housing laws and provide fair housing counsel services to residents.

7.3.1 Implementation Measure: Continue to contract with and make referrals to the Metro Harbor Fair Housing Council. Continue to distribute Metro Harbor Fair Housing Council's brochure on Equal Housing Opportunity Information.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 7.4 Encourage and promote accessible housing for the handicapped and the enforcement of the State accessibility standards for new residential construction.

7.4.1 Implementation Measure: Enforce the current Zoning Code and the State provisions for handicapped access.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

GOALS FOR NEW HOUSING IN CITY

Over 64 percent of the City has been designated as residential in the General Plan. The General Plan land use policy does provide for additional residential development at higher densities than that allowed under present zoning if senior housing is part of the development. The residential land use designations provided for in the Land Use Element are described as follows:

- *Estate Density Residential.* This land use designation includes areas which were previously designated as Agricultural and correspond to single-family detached homes on lots of 5 acres or more.

- *Very Low Density Residential.* This land use designation corresponds to single-family detached homes on lots of more than one acre in size. The population density standard ranges from 3 to 4 persons per acre, assuming an average household size of 3 persons per unit. Corresponding zone district for the very low density residential land use category include the R-A-E districts.

- *Low Density Residential.* This land use category is characterized by single-family detached housing units and accounts for the largest portion of the City's land area. This category permits development to occur at densities of two units per acre. The population density anticipated to result from this type of development will result in between 3 to 6 persons per acre assuming an average household size of 3 persons per unit. The R-A-20,000 zone district corresponds to the low density residential land use designation.

- *Medium Density Residential.* This category of land use in characterized by both single-family development on smaller lots with densities of 2-4 units per acre. The population density standard for this land use designation ranges from between 6 to 12 persons per acre, again assuming an average household size of 3 persons per unit. Corresponding zone districts include the R-A-15,000 and R-A-10,000 zones.

- *High Density Residential.* The high density residential land use designation provides for the development of condominiums, apartments, and multi-family housing projects. The development density for this land use category can reach up to 8 units per acre, provided parking, open space, and other zoning

standards can be met. The resulting population density standard for this land use category ranges from 24 to 32 persons per acre.

POPULATION PROJECTIONS

Since the City has been essentially urbanized for over 30 years, population growth is very modest. As indicated in the Housing Element Background Report, much of this growth is due to new housing construction although household sizes have dropped. This trend is reflective of the City's aging population with children growing up and leaving home.

The implementation of the land use policy depicted in the land use plan would mean that Rolling Hills Estates would be developed exactly as outlined. This assumption is often referred to as the theoretical capacity of a city or community. A more realistic measure of population/housing likely to result from implementation of the General Plan is an effective capacity which is defined as 85-90 percent of the theoretical capacity. Table 4-1 indicates both the theoretical capacity and achievable capacity if the land use plan is implemented. As indicated in Table 4-1, the City's housing and population exceeds its effective capacity.

TABLE 4-1
GENERAL PLAN POPULATION CAPACITY

Land Use Designation	Area [a]	Development Density	Theoretical Capacity		Effective Capacity	
			No. of Units [b]	Population	No. of Units [d]	Population [c]
Estate Density	26	1 du/5ac	5	15	5	15
Very Low Density	84	1 du/ac	84	252	84	252
Low Density	822	2 du/ac	1,644	4,932	1,315	3,945
Medium Density	183	4 du/ac	732	2,196	586	1,758
High Density	93	8 du/ac	744	2,232	595	1,785
Total	1,208		3,209	9,627	2,585	7,755

a. Net Area
b. Number of units were calculated using maximum densities
c. Population was calculated using 3.004 persons per unit for an average household size.
d. Assumes 90 percent of theoretical capacity.

Source: David Evans and Associates, Inc. 1991

Assuming that theoretical buildout is possible, an estimated 3,230 housing units would result with a corresponding population of 9,690 persons.

Because of the high cost and the condition of the existing units, it is likely that new development in the City will largely be restricted to the vacant parcels identified in the Housing Element Background Report. If all of these parcels were developed in accordance with the General Plan and Zoning Ordinance, up to a maximum of 102 units is possible.

REGIONAL HOUSING NEEDS ASSESSMENT

State housing law requires SCAG to identify both existing and future housing needs every 5 years. The 1988 Regional Housing Needs Assessment (RHNA) identifies each jurisdiction's existing housing need, as of January 1, 1988, and future housing need from 1989-1994. Table 4-2 summarizes SCAG's RHNA prepared for the City of Rolling Hills Estates for the 5-year period between July 1989 to July 1994. According to the RHNA, 30 additional units must be provided during this 5-year period to meet its growth allocation.

TABLE 4-2
SCAG REGIONAL HOUSING NEEDS ASSESSMENT

	Very Low Income	Low Income	Moderate Income	High Income	Total
No. of Units	2	3	3	22	30

Source: Regional Housing Needs Assessment, SCAG, 1988.

A number of important issues need to be considered when evaluating the SCAG RHNA for the City:

- The City's land use plan, under a theoretical buildout, would accommodate an estimated 357 additional units from its existing stock of 2,873 units. In reality, the actual number of units possible is far less due to lot sizes and the nature and extent of existing development. The City presently exceeds its effective capacity of 2,584 units. In reality, the existing vacant land in the City can accommodate 37 units which is seven units more than that called for in the Regional Housing Needs Assessment.

- The land use plan does promote the development of higher densities in areas presently developed and provides for new residential development on vacant land in the City.

- The City, by itself, is housing rich and jobs poor according to regional standards. Residential uses have been and will continue to remain the

predominant land use in the City, though if the jobs/housing balance is to be achieved more emphasis should be placed on uses that generate employment.

- The City may meet its allocation for very low and low income housing over the next 5 years though the high cost of land and development is likely to lead to the construction of new housing for high income households. There are limited incentives to encourage the development of low income housing in areas where land costs are so great.

- Because of the decline in federal support for providing housing for lower income households, the responsibility has largely shifted to local governments and private enterprise to provide low cost housing.

JOBS/HOUSING BALANCE

The Southern California Association of Governments (SCAG), South Coast Air Quality Management District (SCAQMD), and State Department of Housing and Community Development (HCD) are promoting jobs/housing balance as a means to solve the number of pressing problems in the Southern California region.

Jobs/housing balance is a concept where a regional balance is achieved if the number of housing units is only slightly less than the employment opportunities so that most of the people living in the area can also work in the area. The benefits of such a jobs/housing balance include less traffic congestion, fewer vehicle emissions with resulting clean air benefit, decreased commute times, and a reduction in the need for major capital expenditures for the development of mass transit facilities.

A balanced region is technically defined as a region where the ratio of jobs to housing is 1.27 (that is 1.27 jobs for every unit) in 1984 and 1.20 in the year 2010. Job rich regions refer to those that have jobs/housing ratios substantially greater than that for the surrounding region (1.27 for 1984 and 1.2 for 2010). Housing rich areas have lower ratios than that for the surrounding region. The SCAG definition of jobs/housing balance does not consider housing affordability into the jobs/housing balance equation. Ideally, the jobs/housing balance should also consider the relationship of housing affordability to the prevailing wages of the locality. SCAG does recommend that the match between housing affordability and incomes be considered through the review of individual projects and in the "implementation process."

If trend projections are correct, the Santa Monica Bay subregion (the subregion in which Rolling Hills Estates is located) could experience an increase of 309,000 persons, 146,900 units, and 253,000 jobs between 1984 and 2010. In 1984, this subregion had a jobs/housing ratio of 1.46 in the urbanized portion of the SCAG region and under the trend projection will be slightly more balanced (1.52) by the year 2010. While Rolling Hills Estates is a housing-rich and jobs-poor City, there is a large employment base in neighboring cities. Thus, overall, the Santa Monica Bay subregion has a relatively good jobs/housing balance of 1.46 in 1984. Additionally, the subregion is likely to remain "balanced" in the foreseeable future since trend projections indicate that the subregion will have a jobs/housing ratio of 1.52 if jobs/housing policies articulated by SCAG are implemented.

The City of Rolling Hills Estates is a predominantly residential community similar in nature to the surrounding communities in the peninsula. Based on current housing and employment estimates of 2,873 units and 3,450 jobs, the current jobs/housing ratio is 1.20, well below the current 1.46 jobs/housing ratio for the subregion and the current ratio of 1.40 for the urbanized region. The City does come very close to the ideal jobs/housing ratio of 1.26 for the entire SCAG region.

NEW HOUSING PROGRAMS

Inclusionary Housing

As set forth in Section II of the Housing Element, SCAG has identified the need for the City to house an additional 30 households by the year 1994, including 2 units for Very Low Income, 3 Low Income and 3 Moderate Income households.

Four major sites have been identified in Section 4-4 of the Element which could be used for the development of up to an estimated 27 housing units. These sites include the Butcher Property, Hawthorne Property, Chandler Quarry, and Chandler Trust Property. In addition, there are nine other lots that could accommodate these units. Thus, there is adequate space available to meet the total need for additional units. However, based on a review of the price structure of recently developed projects, it is clear that without City intervention all of these units would be market rate units, affordable only to upper-income households.

Chandler Reuse Program

The greatest opportunity for the City to develop new low and moderate income housing continues to be with the Chandler Quarry Reuse Program. The Chandler property and adjacent land represent the largest "vacant" land remaining in the City; therefore, there is little chance that a large development will occur after Chandler. The Chandler site can

provide the City with the mechanism for the inclusion of the identified housing need for all income levels for the duration of this element.

The 127 acre Chandler site is currently being used for manufacturing concrete. Fill is being accepted on the site and the operations manager estimates that, at the present rate, it will take ten years to fill it.

City involvement in the implementation process can prove critical. The reuse of the quarry presents many peculiar land use and environmental concerns which cannot be addressed by existing City regulations. The preparation of a Specific Plan prior to the approval stage can greatly facilitate Chandler residential development.

Chandler has certain advantages in terms of the provision of low and moderate housing opportunities. Because of the large scale of the project, the below-market housing can be readily incorporated into the entire project with a minimum impact. One possible location for below market rate housing is adjacent to the City's northerly boundary with the City of Lomita where support services such as public transportation and shopping areas are nearby. Because the City will consider amending both the Land Use Element and Zoning Ordinance, the regulatory capacity for requiring the needed units can be required initially. A provision of the Planned Development can be the specific inclusion of units at all income ranges. The concept of requiring below-market housing in developments is not new and has been used in other communities. Inclusionary zoning can establish specific criteria to enable target groups, such as elderly, to take full advantage of low/moderate housing.

A Specific Plan, which could be adopted by the City by 1995, could achieve the following housing objectives:

- Require identified number of low and moderate rental housing units.
- Require a percentage of specified units to be used as housing for the elderly.
- There is a variety of means by which the below-market rate housing can be implemented and managed. The City should fully explore all alternatives. One approach might be to have the below-market housing deeded to the City as rental units. The City, in turn, could contract with a property management firm to monitor and screen applicants for compliance with City housing goals. Revenue generated from rents could be used to off-set management costs.

However, it cannot be guaranteed that the large parcel will be developed within the next five years. The Chandler Quarry site is being landfilled now and is expected to be ready for development in about ten years given the present rate of landfilling, the anticipated development will certainly not occur by 1994.

> *Implementation.* Amend the Rolling Hills Estates Municipal Code within the next two years to provide for the inclusionary housing policy described above.

Secondary Unit Housing

Provide an outreach program as described in the 1984 Housing Element to inform homeowners of the Secondary Unit Ordinance allowing development of attached second units for occupancy by elderly family members.

> *Implementation.* Publicize the provisions of this ordinance through the City newsletter.

Reverse Mortgage Program

The City's *Existing Housing Need*, as identified by SCAG, indicates that 98 Rolling Hills Estates households are paying more than 30% of their income for housing. As previously noted, many residents of the City own very valuable homes, homes which would cost more than 30% of their income to purchase today.

The Reverse Mortgage Program is designed to assist these homeowners whose current income may not provide adequate resources to pay for necessities besides housing.

It is possible for elderly homeowners to draw needed income from the accumulated equity in their homes through a reverse mortgage. A reverse mortgage is a deferred payment loan or a series of such loans for which a home is pledged as security. Homeowners qualify for such a loan on the basis of property value rather than income, allowing elderly homeowners to receive a loan for which they would not otherwise qualify.

> *Implementation.* The City will inform its senior population about the availability of reverse mortgages by providing educational brochures, as well as a referral service to those seniors who are interested in the program.

State Housing Program

The State of California has formulated a program directed at providing and improving housing for the state's residents. Below are summarized some of the more important State laws associated with the provision.

Density Bonuses

Cities and counties must give a density increase of at least 25% over the otherwise maximum allowable residential density under the zoning ordinance and the Land Use Element of the General Plan (or bonuses of equivalent financial value) to builders who agree to construct housing developments with 25% of the units affordable to low or moderate income households or 10% of the total units affordable to lower income households.

Second Dwelling Units

State law facilitates the creation of units without additional land costs by permitting jurisdictions to allow second dwelling units in single-family zones if they conform to certain criteria.

Fair Housing

State law prohibits discrimination in the development process against housing projects for low and moderate income households.

Mobile Homes

State law makes it illegal for local governments to prohibit the installation of mobile homes on permanent foundations on single-family lots. It also declares a mobile home park to be a permitted land use on any land planned and zoned for residential use, and prohibits requiring the average density in a new mobile home park to be less than that permitted by the applicable zoning ordinance.

Affordable Housing on Surplus Lots

State law gives priority to the use of surplus land for the development of low or moderate income residences and provides for its sale to local governmental agencies at less than market value for that purpose.

Excessive Building Standards

In order to minimize the imposition of excessive building standards which may unnecessarily increase the cost of housing, State law limits any changes or modifications to the State Building Standards Code and other regulations adopted pursuant to Section 17922 to those reasonably necessary because of local climatic, geographical, or topographical conditions. Local governments making any such changes or modifications must report them to the Department of Housing and Community Development and file a finding that a change is needed.

Residential Energy Conservation

State law requires all new construction to comply with "energy budget" standards which establish maximum allowable energy use from depletable sources. These requirements apply to such design components as structural insulation, air infiltration and leakage control, setback features on thermostats, water heating system insulation (tanks and pipes) and swimming pool covers if a pool is equipped with a fossil fuel or electric heater.

State law also requires that a tentative tract map provide for future passive or natural heating or cooling opportunities in the subdivision, including designing the lot sizes and configurations to permit orienting structures so as to take advantage of a southern exposure, shade, or prevailing breezes.

Residential Water Conservation

Local laws require all additions and new residential units to be equipped with water-saving fixtures.

Expedited Processing

Housing projects containing at least 25% of the units for low or moderate-income families are exempt from the four-times-per-year restriction on amendments to mandatory elements of the General Plan.

Fee Limitations

State law limits fees charged for zoning variances, zoning changes, use permits, building inspections, building permits and the processing of maps under the provisions of the Subdivision Map Act to the estimated reasonable cost of providing the service for which the fee is charged.

Substandard Unit Improvements

State law prohibits owners of substandard rental dwellings cited for code violations from taking State income tax deductions for interest, taxes, and depreciation. Extra tax revenues collected under this provision go to local governments to support code enforcement efforts, to build low and moderate-income housing, and to minimize neighborhood displacement.

Mortgage Redlining/Equal Opportunity

Under State law, it is illegal for state-chartered savings and loans to discriminate against entire neighborhoods in lending practices because of the physical or economic conditions in the area. State law prohibits arbitrary discrimination in real property transactions on the basis of sex, race, color, religion, ancestry, or national origin. The City is in support of equal opportunities for housing through its stated General Plan policy.

Neighborhood Compatibility Program

The City has a Neighborhood Compatibility Ordinance which is an ongoing program designed to ensure that new residential construction (rehabilitation, additions, and new units) is compatible with existing development. The primary focus of the Neighborhood Compatibility Ordinance is on architectural and site design. The Ordinance is being expanded to ensure that the unique character of the individual neighborhoods that comprise the City is maintained. As a result, standards are being developed for individual neighborhoods which will be considered in the review of future residential development.

SECTION 4.4. HOUSING ELEMENT BACKGROUND REPORT

This section of the Housing Element contains a discussion of population, socioeconomics, household and housing stock characteristics. Examination of these characteristics help identify the housing needs of the community. Constraints to the development of new housing opportunities are also identified, along with opportunities for energy conservation.

POPULATION AND GROWTH TRENDS

During the past decade, the City's population growth rate slowed in comparison to the growth experienced in previous decades. Between 1960 and 1970, the population of Rolling Hills Estates increased at a rate of 3.9% per year. During the 1970's the population grew at an average rate of 1% per year. The City's population increased from 7,701 to 7,789 between 1980 and 1990, a rate of .114% per year. The City's growth rate for the entire ten-year period was around 1.14%. In contrast, the growth rate for Los Angeles County was 20.20% for the same period and the State's was 25%. The population of Rolling Hills Estates represents less than 1% of the population of the County as a whole. Table 4-3 compares the growth trends in the City, County and State.

According to the U. S. Census, the 1990 average household size in the City was 2.78 persons, slightly higher than household size for the County or the State. However, the City's average household size has shown a decline from 3.02 persons per household in 1980, and an even greater decline from 3.8 persons per household in 1970. This trend in decreasing household size reflects the "aging" of the City's population and households with children who are growing up and leaving home. This factor is also borne out by declining student enrollments in local schools. Exhibit 4-1 compares trends in housing growth, population, and average household size in the City.

TABLE 4-3
POPULATION AND GROWTH

	City	County	State
Total Population (1980)	7,701	7,477,657	23,667,902
Total Population (1990)	7,789	8,988,754	29,473,399
Percent Change (1980-90)	1.14%	20.20%	25%
Average Household Size (1990)	2.78	2.924	2.728

Sources: 1980 Census, 1990 Census for City and U.S.
Department of Housing and Urban Development Estimates.

Age of Population

The 1990 Census provides the most recent information available on the age of the City's population. The Census indicates that the proportion of the City's population over 55 years of age, 28.2%, is roughly comparable to that of the County and of the State as a whole. However, the percentage of the City's population under 18 years of age, 21.7%, is less than that of either the County or the State, at 29.2% and 29.6% respectively. The median age of the City's population, 39.8 years, is nearly ten years older than the median age of the County's population. Age statistics derived from the 1990 Census for the City are compared with comparable statistics for the County and State in Table 4-4. The age characteristics of the population are illustrated in Exhibit 4-2.

TABLE 4-4
AGE COMPOSITION (1990)

	No.	Percent
Under 18 years	1,691	21.7%
18-54 years	3,894	49.9%
55 years +	2,204	28.3%

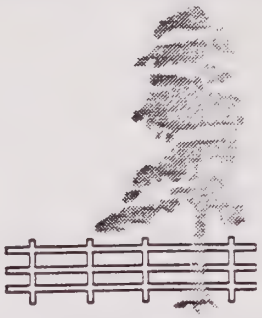
Sources: 1980 U. S. Census, 1990 U. S. Census

Racial and Ethnic Composition

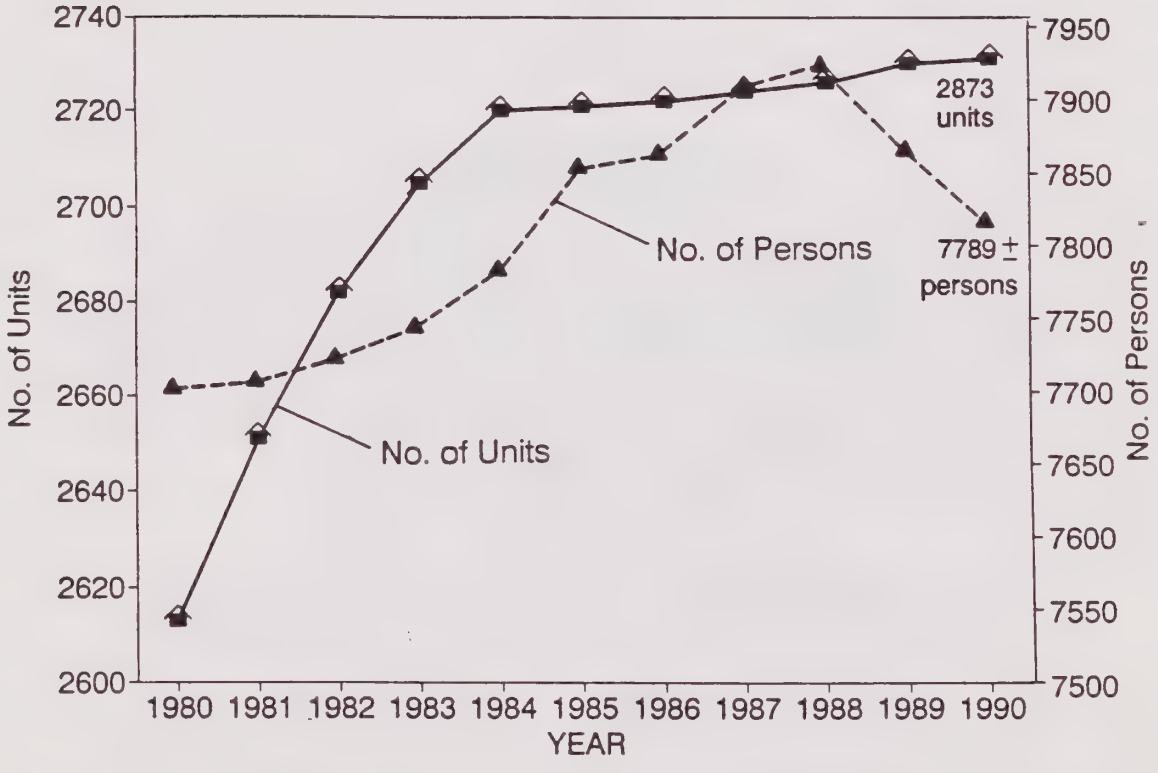
The City's racial and ethnic composition, as documented in the 1990 Census, differs significantly from that of the County. Approximately 82% of the City residents are white, in contrast to 40.8% of the County's residents.

The City's most numerous ethnic minority is Asian which stood at 16% in 1990, higher than the Asian population in the County as a whole. However, the percentage of the City's Black population, less than 1%, contrasts with the County-wide Black population of 10.5%. Similarly, the City's percentage of persons of Hispanic origin, 4%, contrasts with 37.8%, the percentage of persons of Hispanic origin in Los Angeles County as a whole. Table 4-5 summarizes the comparison of City and County ethnic compositions.

City of
Rolling Hills Estates



GENERAL PLAN



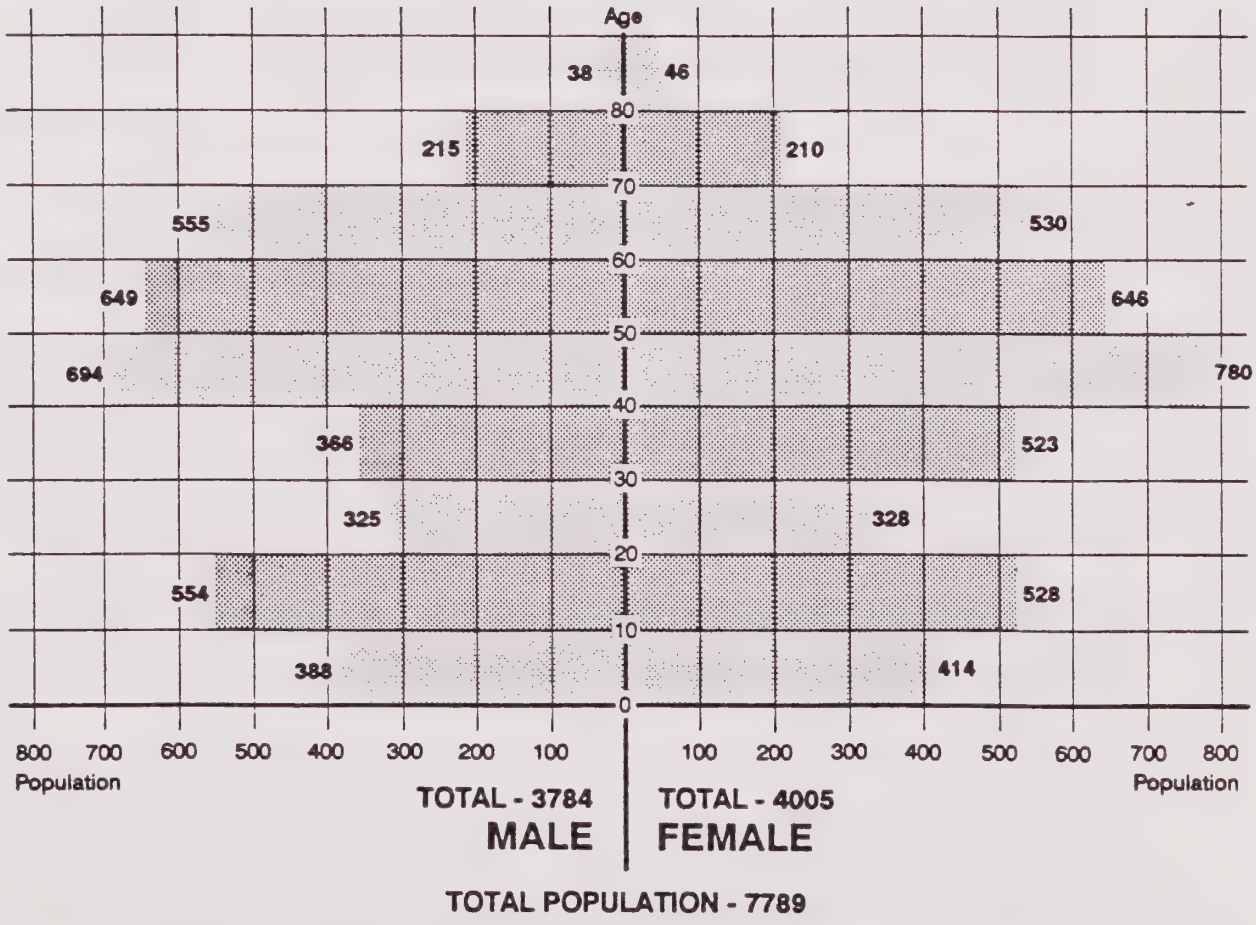


DAVID EVANS AND ASSOCIATES, INC.

DEMOGRAPHIC TRENDS

City of
Rolling Hills Estates

GENERAL PLAN



DAVID EVANS AND ASSOCIATES, INC.

POPULATION PYRAMID - 1990

Exhibit 4-2

TABLE 4-5 RACIAL COMPOSITION (1990)			
	City		County
White	6,468	83.0%	40.8%
Black	60	0.7%	10.5%
American Indian	5	0.1%	0.3%
Asian	1,246	15.9%	10.2%
Other	10	0.1%	37.8%
Totals	7,789	100.0%	100.0%
Sources: 1990 Census			

Household Income

In 1979, the City's median household income of $46,928 was more than two and a half times the County median household income of $17,563. This characteristic is consistent with relatively high housing values in the City.

Household income has increased significantly since 1980. The State of California Department of Housing and Community Development (1989) estimates that median household income in Los Angeles County is currently $42,000. If the ratio of City to County median household income has remained constant since 1980, then current median household income in the City of Rolling Hills Estates can be estimated to be $105,000. Household income statistics for the City are compared to the County and State statistics in Table 4-6.

TABLE 4-6 HOUSEHOLD INCOME			
	City	County	State
Median Household Income (1979)	$ 46,928	$17,563	$18,248
Median Household Income (1989)	$105,000	$42,000	---
Average Household Size (1990)	2.78	2.821	2.728
Sources: 1990 Census, 1990 State Department of Finance estimates, and U.S. Department of Housing and Urban Development estimates.			

Housing Characteristics

In 1990, the U. S. Census estimated that there were 2,873 housing units in the City. Single-family units comprised 98.0% of this total and the remaining 2.0% were condominiums. There were no mobile homes in the City, according to the Department of Finance.

Approximately 90% of the housing in Rolling Hills Estates was built between 1950 and 1980. Housing, along with population, increased rapidly over these three decades. However, new housing construction slowed in the City in the 1980's, increasing by only 10% in the last decade. Table 4-7 and Exhibit 4-3 show that single-family detached units accounted for the majority of the new housing units. Other unit types have not increased since 1980.

TABLE 4-7
HOUSING STOCK

	City	County	State
Total Housing Units (1980)	2,613	2,855,775	9,279,330
Total Housing Units (1990)	2,873	3,174,132	11,206,393
Type of Structure (1990)			
Single-Family	98.0%	53.6%	60.7%
Multi-Family	2.0%	44.9%	34.9%
Mobile Home	0	1.5%	4.4%

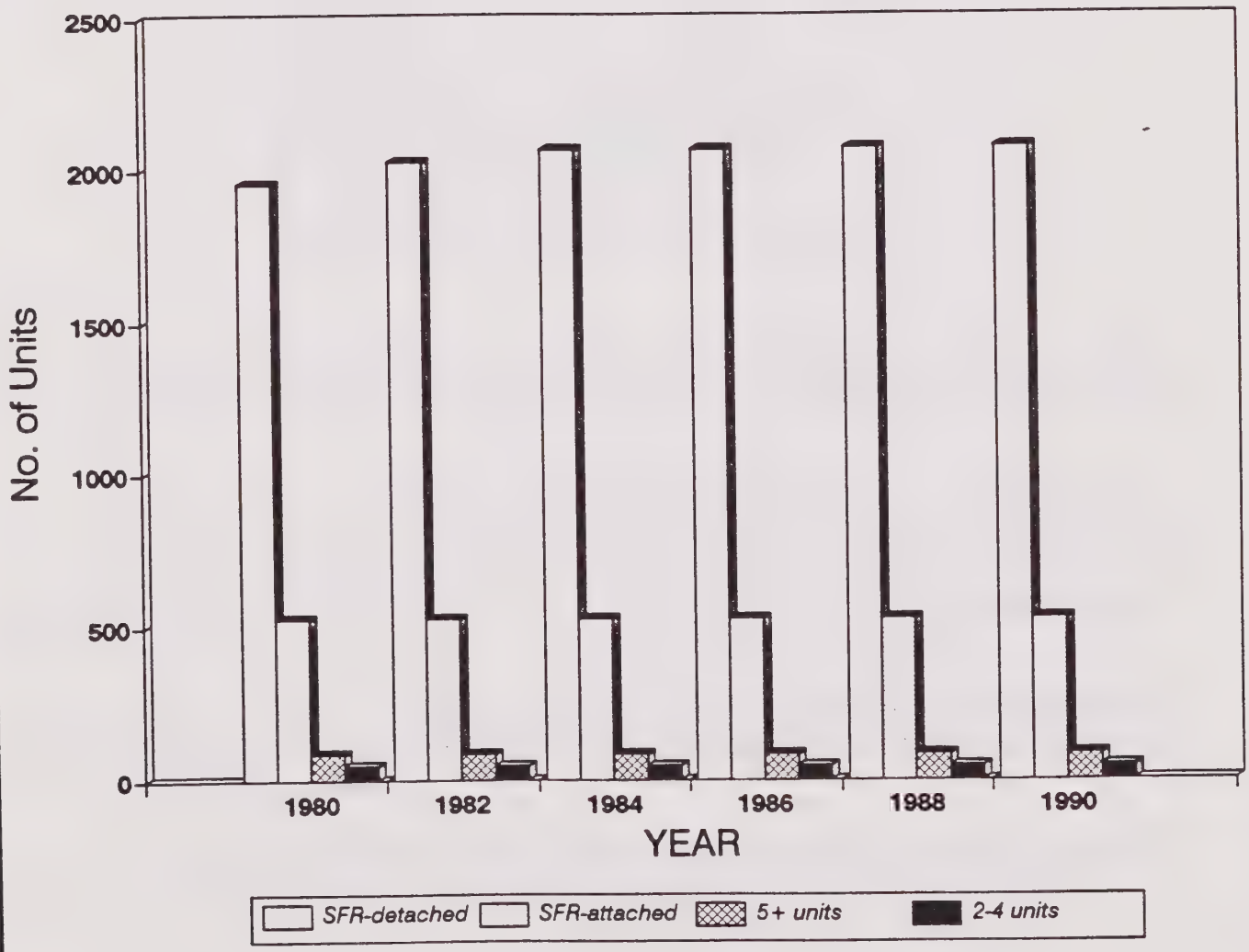
Sources: 1980 U. S. Census; 1990 U, S. Census

Housing in the City is generally well-maintained due in large measure to the high property values of the land and improvements. The City maintains an active code enforcement program to ensure compliance with sections of the Municipal Code that regulate maintenance of residential units. In addition, many homes in the City are within the jurisdiction of the City's Homeowners Associations. Most of these organizations meet regularly and monitor housing conditions in their neighborhoods. Deteriorating structures and property code violations are brought to the attention of the City's code enforcement officer.

Due to these factors--a high level of income and property values, active homeowners associations, and a stringent code enforcement policy on the part of the City-housing in Rolling Hills Estates is very well maintained and generally not in need of rehabilitation or replacement. Table 4-8 provides an age comparison of City housing stock.

City of
Rolling Hills Estates

GENERAL PLAN



DAVID EVANS AND ASSOCIATES, INC.

HOUSING TYPES 1980 - 1990

Exhibit 4-3

TABLE 4-8 AGE OF HOUSING STOCK (1980-1989)	
	City
Age of Housing (1980)	
0-10 years	31.6%
11-20 years	29.5%
21-30 years	34.1%
31 years or more	4.7%
Age of Housing (1989)	
0-9 years	4.5%
10-19 years	28.6%
20-29 years	28.0%
30-39 years	32.2%
40 years or more	4.7%
Sources:1980 Census; Carriage Realty Statistics Report and Sales Analysis (1983); Coldwell Banker Sales Report and Property Statistics Analysis (1989)	

Occupancy

The 1990 Census reported that 91.6% of the City's homes were owner-occupied units. This level greatly exceeds that of the County, which was 48.5% in 1980, and of the State, which was 55.9%.

The residential vacancy rate (number of unoccupied housing units on the market for every 100 units of housing), is a good indicator of the balance between the demand for housing in a community and its supply. A low vacancy rate reflects a low supply of available units and upward pressure on home prices and rents, to the disadvantage of prospective home buyers and renters.

A healthy housing market is considered to be one which has a vacancy rate between 5% and 8% distributed across a variety of housing types and prices, allowing a range of choices for different segments of the market.

In 1990, the State Department of Housing estimated that the City's vacancy rate was 2.71%. This lower than ideal vacancy rate indicates a high demand for housing in the City.

Housing Values and Costs

The 1990 Census reported that the median sales price of a home in Rolling Hills Estates was over $500,000, the highest bracket measured by the Census for home values. In 1983, a realtor's report indicated that the average sales price of a single family home in the City was $349,357 and the average sales price of a condominium unit was $227,374. By 1989, these values had risen to an estimated $721,000 for single family homes and $500,001 for condominiums. These housing costs are summarized in Table 4-9.

The 1990 Census reported the median contract rent in the City was more than $1,001 per month. A realtor's report estimates that the 1983 median rent was $1,140 for a two-bedroom unit and $1,170 for a 3-bedroom unit. By 1989, estimated median rent for a 2-bedroom unit was $1,633 and for a 3-bedroom unit $1,857.

TABLE 4-9
HOUSING COSTS

Average Selling Price (1983)	
Single Family Unit	$349,357
Condo Unit	$227,374
Average Selling Price (1989)	
Single Family Unit	$721,000
Condo Unit	$500,001

Sources: 1989 State Department of Finance estimates; Carriage Realty Statistics Report and Sales Analysis (1983); Coldwell Banker Sales Report and Property Statistics Analysis (1989)

Existing Housing Needs

Although residents of Rolling Hills Estates are generally adequately housed and the City's housing stock is well maintained, State law requires that this Housing Element consider certain specific housing issues in the community:

- Housing affordability.
- Households with special housing needs.
- Provision of an adequate supply of housing.

- The City's role in meeting regional housing needs.

Housing Assistance

The Southern California Association of Governments' (SCAG'S) 1988 Regional Housing Needs Assessment estimates that 98 households (3.6% of the households in the City) are in need of housing assistance. According to these statistics, which are based on a comparison of housing costs in Rolling Hills Estates and income of the City's residents, 98 households are spending more than 30% of their income for housing and have income less than 80% of the County-wide median income, adjusted for size. Since these households must spend a disproportionate share of their income on housing, they have inadequate funds remaining to purchase other necessities, such as food and medical care.

Table 4-10 shows the number of such households that are owners and renters and the number categorized as Low and as Very Low Income households:

TABLE 4-10
HOUSEHOLDS NEEDING HOUSING ASSISTANCE

Household Income	Owners	Renters	Total	Percent of Total
Low	29	11	40	41%
Very Low	47	11	58	59%
Total	76	22	98	100%

Source: Regional Housing Needs Assessment, Southern California Association of Government June 1988.

The State Department of Housing and Community Development defines Very Low Income as household income below 50% of the County's median household income. Income between 50% and 80% of the County median is considered Low and income between 80% and 120% is considered Moderate. Currently, median household income in Los Angeles County is estimated at $42,000. For a four-person household, current income limits for each of these categories is shown in Table 4-11.

TABLE 4-11
INCOME LIMITS FOR LOW AND MODERATE INCOME HOUSEHOLDS

Income Level	Income Range	Maximum Annual Household Income
Very Low	Up to 50% of median	$21,000
Low	50% - 80% of median	$33,600
Moderate	80% - 120% of median	$50,400

Source: U.S. Department of Housing and Urban Development, May, 1991.

Federal and State housing agencies consider housing to be affordable if it costs no more than 30% of gross household income. The maximum monthly payment for housing regarded as affordable for each of the above income groups is shown in Table 4-12. This maximum affordable monthly payment is the same whether the household is purchasing or renting the unit. For the City's low and moderate income residents, the maximum affordable home purchase price has been calculated assuming a 20% down payment and 10 1/2% interest rate, and a 30-year fixed rate mortgage.

TABLE 4-12
MAXIMUM AFFORDABLE MONTHLY HOUSING PAYMENT FOR LOW AND MODERATE INCOME HOUSEHOLDS

Income Group	Maximum Monthly Income*	Maximum Affordable Monthly Housing Payment	Maximum Affordable Purchase Price
Very Low	$1,812	$ 544	$ 75,000
Low	$2,900	$ 870	$120,000
Moderate	$4,333	$1,305	$144,000

* For a four-person household
Source: U.S. Department of Housing and Urban Development, May 1991.

Most residents of the City, including those in households with incomes that fall within the definition of Low or Very Low income, own very valuable homes, purchased at a time when housing prices in Rolling Hills Estates were much lower than they are today. Such households may, in fact, have already paid for their homes or be paying off mortgages in monthly payments that are within their means. Under these circumstances, the homes these residents own and are living in today are, in fact, affordable to them, although these homeowners may not be able to purchase these same homes today.

Households with Special Needs

Certain groups within the community have special housing needs. These are the elderly, the handicapped, and female-headed households. Their specific needs and those of other special needs categories are discussed below. According to the State Department of Housing and Community Development, there are no subsidized low-income housing units in the City.

Elderly Households

The 1990 Census reported that 693 households, or nearly 24% of the households in Rolling Hills Estates included at least one person who was 65 years of age or older. As indicated from the comparison of 1980 and 1990 Census statistics, the City's population is aging. This trend is likely to continue through this decade into the next.

Elderly households with limited or fixed income often have particular problems with the cost of housing. The 1980 Census reported that, at that time, 14 elderly persons with income below the poverty level were living in Rolling Hills Estates. However, there is no information available on the actual housing costs paid by these elderly residents.

Handicapped Housing

The 1980 Census indicated that approximately 4% of the population of Rolling Hills Estates had work disabilities. At the same time, about 1% of the population was reported to have public transportation disabilities. Assuming that these percentages have remained constant, it is estimated that there are presently 280 residents of the City who have a work disability and 85 who have public transportation disabilities. The needs of many disabled persons can be met without special housing accommodations. However, persons with ambulatory difficulties may require ramps and other specially designed features, which are often difficult to find in rental housing.

Female-Headed Households

In 1980, approximately 6% of all households in Rolling Hills Estates were headed by females. Because female-headed households, in the general population, tend to have limited income, affordable housing is a problem for them. According to the 1990 Census, there are currently 66 female-headed households in the City with children under 18 years of age.

Large Households and Overcrowding

In 1980, of the 2,547 households in the City of Rolling Hills Estates, 362, or 14%, were comprised of 5 or more persons. However, the 1980 Census identified only 25, or less than 1% of the City's households were found to be overcrowded. According to the 1990 Census, there were 288 household (10% of those in the City) with five or more persons in the household. Apparently most of the large families in the City have adequate room, although those who rent housing may have a limited range of choices available to them.

According to the 1990 Census the average household size is 2.78 persons, a decline from the 1980 level of 3.02 persons per household. This decline may indicate that overcrowding, if it still exists in this community, has become less of a problem.

Farmworker Housing

Although the City's Comprehensive Zoning Ordinance permits agricultural uses, local topography and the price of land preclude large scale commercial agriculture in the City. Further, the records maintained by the regional office of the State Employment Development Department indicate that there are no farmworker households living in Rolling Hills Estates. The lack of evidence of farmworkers living or working in the City, suggests that there is no need for farmworker housing.

Emergency Shelter for the Homeless

In recent years, homelessness has become a national problem, attributable to several causes: the dwindling supply of housing affordable to low and moderate income households; the increasing number of people whose incomes fall below the poverty line; the reduction in public subsidies, including housing subsidies to the poor; and the deinstitutionalization of the mentally-ill. The rapid increase in home prices in this community provides an example of one of the main causes of homelessness, that is, the high cost of housing today.

No precise data is currently available on the number of homeless persons in Los Angeles County. However, it is estimated that there are, at present, between 35,000 and 50,000 homeless individuals in Los Angeles County, the most severe homelessness problem in the United States. Another study, using data that was not considered in previous estimates, concluded that homelessness in Los Angeles County is actually in the range of 100,000 to 160,000 persons.

The Los Angeles County Sheriff's Station and South Bay service organizations have indicated that they have no record of homeless persons living in Rolling Hills Estates. There are several organizations that provide emergency shelter, meals and other services to homeless persons in the South Bay. These organizations and the services they provide are listed below.

- ***Harbor Interfaith Shelter*** (1420 8th Street, San Pedro): This organization provides temporary shelter for families in a 16-unit apartment building. Families may stay a minimum of 60 days. They report a 95% success rate in placing homeless families in permanent housing. The organization also operates a service program which offers welfare advocacy, food distribution, job referrals, and referral for medical and prenatal care.

- ***His House*** (1103 Sartori Street, Torrance): *His House* is a church volunteer organization. Volunteers serve food to about 150 people each day. They also distribute free clothing and provide one-night hotel vouchers to the homeless on cold nights.

- ***Salvation Army*** (4223 Emerald Street, Torrance): The *Salvation Army* provides free food, clothing and transportation to the homeless.

- ***Beacon Light Mission*** (525 Broad Avenue, Wilmington): This organization offers shelter to homeless men for a maximum of seven consecutive days. Breakfast and dinner are also served to the homeless each day.

- ***United Way*** offers 24-hour, 7 days a week information in English and Spanish to direct people in need to the nearest appropriate agency.

Although there is no evidence of homeless persons in the City of Rolling Hills Estates, should any homeless person seek assistance from the City in the future, they would be referred to these organizations for assistance.

Future Housing Needs

Estimates prepared by SCAG in 1988 indicate that 30 additional housing units will have to be constructed in Rolling Hills Estates by 1994 in order to accommodate population growth due to:

- The formation of new households.

- The immigration of population to Los Angeles County as a whole.
- The redistribution of population within the County, based upon factors discussed later in this section.

The estimated future need of 30 dwelling units translates into a minimum of 6 housing units per year between 1989 and 1994. In the past few years, a total of 11 residential units were constructed within the City between January 1, 1984 and January 1, 1990, or an average of 2 units per year. This trend reflects some of the constraints to the development of additional housing units in Rolling Hills Estates. Most buildable sites have already been developed. Sites that do exist are expensive. Much of the land which remains undeveloped has serious environmental and land use constraints.

Regional Housing Needs

The City's share of the regional housing needs was determined by the Southern California Association of Governments (SCAG) as contained in the Regional Housing Needs Assessment (RHNA) prepared in 1988.

The RHNA has two purposes:

- To identify housing needs; and
- To allocate a fair share of regional housing needs to every community.

The identification of need refers to the number of housing units necessary to house every household at an affordable price and to replace all dilapidated housing units. The fair share allocation refers to the number of additional households in each income category that should have housing opportunities available in a particular community. The allocation strives to obtain an equitable distribution of low and moderate income housing throughout the region.

Six major criteria are used in determining the fair share for each community:

- Market demand for housing.
- Employment opportunities.
- Availability of suitable sites and public facilities.

- Commuting patterns.
- Type and tenure of housing needs.
- Housing needs of farmworkers.

In addition, housing need allocations attempt to avoid further concentration of lower-income households in areas already impacted by their concentration.

As discussed earlier, SCAG has projected the need to house 30 additional households in the City by 1994. (This figure does not include existing housing needs estimated at 98 households that are paying more than 30% of their income for housing). The distribution of the projected housing need by income category is shown in Table 4-13.

TABLE 4-13
DISTRIBUTION OF MAXIMUM AFFORDABLE HOUSING COSTS BY HOUSEHOLD INCOME

Income Category	Income Range	Maximum Monthly Income*	Additional Units Needed By 1994	Maximum Affordable Monthly Housing Payment/Purchase Price
Very Low	Up to 50% of median	$1,812	2	$544/$75,000
Low	50-80% of median	$2,900	3	$870/$120,000
Moderate	80-120% of median	$4,333	3	$1,305/$144,000
Upper	Over 120% of median	No Limit	22	Market Rate
TOTAL			30	

* Assuming a four-person household and based on current estimates of median income for Los Angeles County ($42,000 annually), provided by State of California Department of Housing and Community Development, May, 1991.

Source: Regional Housing Needs Assessment, Southern California Association of Governments, December 1988.

Constraints on Housing Development

The production and cost of housing in Rolling Hills Estates are directly influenced by market, environmental, and governmental constraints.

Market Constraints

Market constraints on the provision of housing include the availability of financing, the price of land, and the cost of construction.

Land Costs

Since the mid 1960's, raw land prices have been significantly higher in Southern California than in the rest of the United States. According to the California State-wide Housing Plan, in the year 1966-67, the price per square foot of raw developable land was $3.58 versus $1.58 in the Midwest and $1.64 in the Northeast. In the early 1980's, the average cost of developable land in California was nearly $190,000 per acre, compared to $55,000 for the rest of the country.

In Rolling Hills Estates and throughout the Palos Verdes Peninsula, land costs represent a relatively high proportion of total housing costs. As the remaining developable land has become more scarce in the Los Angeles metropolitan area, and on the Peninsula in particular, the price of land in the City has risen. A typical one-half acre of raw land, suitable for the construction of a single-family home, currently costs approximately $500,000. In addition, the land which has not yet been developed tends to have more environmental constraints, such as topographical features that require extensive grading, and is thus more costly to develop.

Financing Costs

The California State-wide Housing Plan indicates that throughout the 1980's the prime interest rate in California, and the United States as a whole, has been relatively high compared to previous decades. Although the prevailing interest rate of 10 percent in May, 1990 is low compared to the 1982 peak of 18.8 percent, it is high compared to the levels of 4 and 5 percent recorded in the early 1960's and rates of less than 7 percent as recently as 1977. The long-term trend is toward higher interest rates and therefore higher housing costs.

Construction Costs

The California State-wide Housing Plan reports that direct construction costs have increased sharply over the past decade. According to the Real Estate Research Council of Southern California, the total cost of constructing an "average, hypothetical single-family residence" in the Los Angeles area has risen from $57,450 in January 1983 to $69,400 in April 1989. In the year between April 1988 and April 1989 alone, there has been an increase of $1,600 in housing construction costs. Costs per square-foot have risen from $36.59 in January 1983 to $44.20 in April 1989.

Land Availability/Environmental Constraints

As noted earlier, the City of Rolling Hills Estates experienced rapid growth between 1950 and 1980, when 90% of the existing housing stock in the City was built. The land that presented the fewest problems to development was built up during that period and today few sites remain for housing development.

The topography of the City ranges from hilly slopes to steep canyons. While most residential lots are large by urban standards (with the majority, approximately 20,000 square feet), the developable area on these lots is much smaller, often less than half of the lot area. The density of residential development is therefore limited by topography. Constraints to physical access and infrastructure availability also limit residential densities.

The rate at which the remaining residential lots are being developed is revealed by a comparison of the number of vacant residentially-zoned lots in 1983 and the current number of such sites. On the basis of the 1983 survey, the City's 1984 Housing Element reported a total of 39 vacant sites suitable for residential development. A recent count of vacant residentially-zoned lots indicates that 10 of these sites remain undeveloped. Table 4-14 shows the location of the sites that were undeveloped in 1983 and of those which have remained undeveloped.

Additionally, a few large parcels of land in the City which remain undeveloped could, with appropriate permits, be used for residential development. These sites include:

- Site: Butcher Property
  Zoning: RA-20,000
  Size: 6.5 acres
  Approximate Number of Units That Could be Built: 12

- Site: Hawthorne Property
  Zoning: RA-20,000
  Size: 1.5 acres
  Approximate Number of Units That Could be Built: 2

- Site: Chandler Quarry
  Zoning: Q
  Size: 127 acres (assuming 50% reclamation is effective-60 units could be constructed).
  Approximate Number of Units That Could be Built Within Housing Element Time Frame: 0 - 8 depending on reclamation and closure.

- Site: Chandler Trust Property
  Zoning: A (5 acres per unit)
  Size: 26 acres
  Approximate Number of Units That Could be Built: 5

TABLE 4-14
VACANT RESIDENTIALLY ZONED LOTS

Location	Zoning	Number in 1983	Number in 1990
Club View Tract	RA-20,000	3	1
Lantana Place	RA-20,000	1	0
Encanto Drive	RA-20,000	3	0
Harbor Sight Drive	RA-20,000	1	0
Deerhill Drive	RA-20,000	1	1
Hitching Post Drive	RA-20,000	1	1
Palos Verdes Drive North	RA-20,000	4	1
Empty Saddle Lane	RA-20,000	1	1
Tanglewood Lane	RA-20,000	3	0
Sunnyfield Drive	RA-20,000	2	1
Rawhide Lane	RA-20,000	1	0
Branding Iron Lane	RA-20,000	1	0
Shady Vista Road	RA-10,000	1	0
Santa Bella Road	RA-10,000	1	0
Moccasin Lane	RA-20,000	3	1
Hidden Valley Road	RA-20,000	2	2

TABLE 4-14
VACANT RESIDENTIALLY ZONED LOTS

Location	Zoning	Number in 1983	Number in 1990
Pleasant Hill Drive	RA-20,000	1	0
Rolling Meadows Road	RA-20,000	1	0
Silver Spur Road	RA-20,000	1	0
Rockbluff Drive	RA-20,000	2	1
West Lariat Lane	RA-20,000	3	0
Lazy Creek Lane	RA-20,000	2	0
		39	10

Source: Rolling Hills Estates Planning Department, 1990

Governmental Constraints

The cost of constructing or modifying a home is directly influenced by governmental regulations. Land use controls, site improvement requirements, permit fees, and other regulations designed to maintain the quality of development are intended to serve as constraints on the production of housing. In addition to limiting the size and type of housing that may be built in the City, these governmental fees and regulations also increase housing costs.

Zoning Regulations

The Rolling Hills Estates Comprehensive Zoning Ordinance provides five different residential zoning designations, allowing for varying densities of development. These are shown in Table 4-15.

TABLE 4-15 ZONE DENSITIES	
Zone	**Minimum Lot Size (per unit)**
R-A-E	1 acre
R-A-20,000	20,000 square feet
R-A-15,000	15,000 square feet
R-A-10,000	10,000 square feet
R-P-D *	Density Established by General Plan
* Site must be at least 10 acres in size.	

The R-P-D Zone (Residential Planned Development) was established to regulate the development of cluster housing and to provide for open space areas in these developments. The density of each clustered housing project is established by the Land Use Element of the General Plan.

Lot coverage in all residential zones is limited to 30% of the total lot area, except in the R-A-E Zone, where it is limited to 25%. Building height for all zones is limited to 27 feet.

Fees

The City of Rolling Hills Estates and the Los Angeles County Department of Building and Safety charge various fees and assessments to cover the cost of processing permits and providing inspection services. Table 4-16 shows the application fees charged by the City, as of July, 1991, for various residential planning permits.

TABLE 4-16 CITY OF ROLLING HILLS ESTATES PLANNING PERMIT APPLICATION FEES		
Type of Permit	**Fee**	**Appeal**
Variance		
In Residential Zone Districts for a single development standard Variance request	$500	$250
For each additional development standard Variance request on the same application	50% of the basic fee	
Neighborhood Compatibility	$325-$500	$175-$250

TABLE 4-16 CITY OF ROLLING HILLS ESTATES PLANNING PERMIT APPLICATION FEES		
Type of Permit	**Fee**	**Appeal**
For each additional request on the same application	50% of the basic fee	
Zone Change		
For a single request	$600	$300
Other residential planning fees are charged as follows:		
View Preservation Inspection Minor Deviation Special Use Permit	$100 $325 $325	N/A $160 N/A
Source: Rolling Hills Estates Planning Department, 1990		

Energy Conservation

As non-renewable energy resources are depleted and energy costs rise, homeowners have become more aware of the need to conserve energy, primarily as a means to control the rising costs of fuel. Although alternative energy sources are used most advantageously in developing new housing, there are numerous energy conservation measures that can be adapted to existing housing for the conservation of non-renewable fuels and to save money. Some of the most readily available measures for conserving energy in new residential development, as well as in other homes, are described below. In addition, Appendix B and C describe energy conserving household fixtures for new and existing units and energy conservation measures for residents.

Insulation and Weatherproofing

More than one-third of the homes in Rolling Hills Estates were built prior to 1960, when there was little concern for the use of electricity, oil and natural gas for heating purposes. To conserve the heat generated by older heating units and minimize the heat loss ratio, these homes can be insulated in the attic space and exterior walls. Windows and exterior doors can be fitted with airtight devices, caulking or other means to maximize heating and cooling efforts.

Natural Lighting

Daytime interior lighting costs can be significantly reduced or eliminated with the use of properly designed and located skylights. Skylights can be easily installed at reasonable expense in existing houses, thereby substantially reducing electricity costs and energy consumption.

Solar Energy

Solar energy is a practical, cost effective, and environmentally sound way to heat and cool a home. In California, with its plentiful year-round sunshine, the potential uses of solar energy are numerous. With proper building designs, this resource provides for cooling in the summer and heating in the winter; it can also heat water for domestic use and swimming pools and can generate electricity.

Unlike oil or natural gas, solar energy is an unlimited resource which will always be available. Once a solar energy system is installed, the only additional costs are for the maintenance or replacement of the system itself. The user is not subject to unpredictable fuel price increases. Moreover, solar energy can be utilized without any serious safety or environmental concerns.

Solar heating and cooling systems are of three general types: passive, active, or a combination of both. In passive solar systems, the building structure itself is designed to collect the sun's energy, then store and circulate the resulting heat, similar to a green house. Passive buildings are typically designed with a southerly orientation to maximize solar exposure, and constructed with dense materials such as concrete or adobe to better absorb the heat. Properly placed windows and overhanging eaves also contribute to keeping a house cool.

Active systems collect and store solar energy in panels attached to the exterior of a house. This type of system utilizes mechanical fans or pumps to circulate the warm/cool air, while heated water can flow directly into a home's hot water system.

Although passive systems maximize use of the sun's energy and are less costly to install, active systems have greater potential for both cooling and heating a home and providing hot water. This may mean lower energy costs for residents presently dependent on conventional fuels. The City should also encourage the use of passive solar systems in new residential construction to improve the energy efficiency of housing units.

Water Conservation

Simple water conservation techniques can save a family thousands of gallons of water per year, plus many dollars in water and associated energy consumption costs. It is now possible to obtain plumbing products that reduce water waste by restricting the volume of water flow from faucets, shower heads, and toilets. The use of plant materials, in residential landscaping, that are well adapted to the climate in the Palos Verdes Peninsula can also measurably contribute to water conservation by reducing the need for irrigation.

A household can save water by fixing dripping faucets and using water more conservatively. In addition, such conservation practices save on gas and electricity needed to heat water and the sewage system facilities needed to treat it. By encouraging residents to conserve water and install water saving devices, the City can greatly reduce its water consumption needs and expenses.

Energy Audits

The Southern California Edison Company provides energy audits to local residents on request. Many citizens are not aware of this program. The City can aid in expanding this program by supplying the public with pertinent information about this service, including the appropriate contacts. Energy audits are valuable in pinpointing specific areas in residences which are responsible for energy losses. The inspections also result in specific recommendations to remedy energy inefficiency.

Evaluation of Previous Housing Element

The City of Rolling Hills Estates prepared an update to its Housing Element in 1984. At that time the following housing programs were adopted:

- Chandler Reuse Program
- Second Dwelling Unit ("Granny Flat") Ordinance Program
- Program for Conservation of Existing Housing

The following section describes these three programs, as adopted in the City's 1984 Housing Element update, and discusses results in implementing these programs over the past five years.

Chandler Reuse Program

The City's 1984 Housing Element identified the 127-acre Chandler Quarry as "probably the greatest opportunity for the City to develop new low and moderate income housing." It was noted that "the Chandler property and adjacent land represent the largest vacant land remaining in the City" and that it could "provide the City with the mechanism for the inclusion of the identified housing need for all income levels for the duration of this element."

This site, the Chandler Palos Verdes Sand and Gravel Lomita Sand Pit, has been used for mining sand and gravel since 1936. The 1984 Housing Element noted that the owner-operators of the quarry had indicated a willingness to cease mining operations within the next few years if an economically viable reuse plan could be adopted.

The program outlined in the 1984 Housing Element was to adopt a Specific Plan and a Planned Development Zone for this site in order to direct its development to include housing opportunities for low and moderate income persons. The specific implementation techniques advanced were to:

- Require that a certain number of low and moderate income rental units be included in development plans for this site;
- Require that a percentage of the units be used for housing senior citizens;
- Explore alternatives for the City to implement and manage a below market rate rental housing program on this site;

Results of Implementation

In January, 1986, the Planning Commissioners visited the Chandler Quarry in preparation for an investigation of the land use alternatives and environmental review for the site. At a joint Planning Commission/City Council meeting in April, 1986, Planning Staff advanced several different land use alternatives for the site. At the conclusion of this meeting the City Council directed the Planning Commission to proceed with the investigation of land use alternatives in order to make a recommendation to the Council regarding a possible zone change. The Council's expressed intention at that time was to obtain maximum control over the development of this site. However, uncertainty over the viability of the site for future development, including significant environmental issues, prevented completion of this program.

At the request of the City Council, the Chandler Reuse Advisory Committee was formed in February, 1988, representing civic, public and private organizations, as well as the citizens of Rolling Hills Estates. The purpose of the committee was to explore land-use alternatives, similar to the four mixed-use proposals outlined in the Chandler Reuse Study of 1984. The mixed-use approach would combine residential, commercial and open space land uses.

In March 1989, the Planning Commission approved a Conditional Use Permit to allow the establishment of an engineered, compacted landfill on approximately 120 acres of existing quarry pits and to establish a golf driving range on an existing non-compacted fill area of the site. Subsequently the City Council denied the driving range but approved the compacted landfill plan.

The quarry, which is no longer mined, is currently being used for manufacturing concrete. Fill is being accepted on the site and the operations manager estimates that, at the present rate, it will take ten years to fill it. No steps are currently being taken to accelerate this process.

Second Dwelling Ordinance Program

In July of 1983, the City adopted a Secondary Unit Ordinance (or "Granny Flats" Ordinance), which permits second dwelling units on existing single-family sites. This is a State-mandated ordinance (Senate Bill No. 1534) directed toward providing housing for elderly family members. The ordinance addresses the City-wide need for smaller, more efficient housing for those on fixed income.

The 1984 Housing Element saw in this ordinance an opportunity to increase housing options for senior citizens in Rolling Hills Estates.

The main provisions of this Ordinance are as follows:

- A Conditional Use Permit must be obtained pursuant to Section 1900 of the Municipal Code.
- Second dwelling units must be attached to and accessible through the main dwelling.
- An additional enclosed parking space shall be provided on the lot for any second dwelling unit in addition to pre-existing parking spaces.
- The size of the second dwelling unit shall not exceed six hundred and forty (640) square feet.

- No more than two persons, at least one of whom must be not less than sixty (60) years of age and related by blood or marriage to the occupant of the pre-existing dwelling, may occupy the second dwelling unit.

At a joint City Council/Planning Commission meeting held on April 5, 1983, it was agreed that regulations should be stringent enough so that any second units that are permitted will not have any adverse impact on the surrounding established neighborhoods. By maintaining consistency with state-mandated provisions, the City's ordinance enables the development of second units without significant impact on existing development patterns.

The City has complied with the laws regarding second dwelling units, but has had no inquiries as of this time. This is unfortunate due to the particular advantages such units can provide the homeowner and the City. The social benefits of enabling older family members to remain in the home environment are clear.

This program was to be implemented by the establishment of an outreach program aimed at informing homeowners of the existence of the Secondary Unit Ordinance. The program was to highlight the permit process and development standards of the ordinance. As of this time, no program has been established.

Program for Conservation of Existing Housing

The 1984 Housing Element noted that much of the local housing stock was constructed more than 15 years ago. It was also noted that many residents had purchased their homes many years ago and were, therefore, spending less on housing costs than they would if they were purchasing a home at current market prices and interest rates.

In order to encourage residents to upgrade these older homes, an owner rehabilitation assistance program was adopted. Implementation techniques were identified as follows:

- Develop an owner-builder assistance program providing technical assistance to those interested in maintaining their current housing status while upgrading the unit to current standards. Target completion date: January 1985.

- Target units in need of renovation to meet code requirements and provide rehabilitation information. Target date: Ongoing.

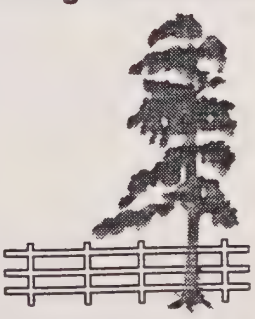
- Investigate state and federal assistance programs in order to establish low-interest funds for owner rehabilitation loans. Target date: January 1985.

Since the adoption of the 1984 Housing Element, initiative on the part of local homeowners to improve their property has become a trend in Rolling Hills Estates. Land values continue to rise and many property owners are taking steps on their own to conserve and enhance these values by improving their homes. Over the past five years, Planning Staff has observed an increasing number of home improvement permit applications.

An active code enforcement program in the City regularly identifies properties that are out of compliance with zoning and building code standards. Owners are notified of code violations and regular follow-up ensures action to bring properties into compliance.

Although state and federal low-interest loan programs for home rehabilitation are available to some cities, the City of Rolling Hills Estates could not qualify for such programs.

City of
Rolling Hills Estates



GENERAL PLAN

Conservation Element

SECTION 5.1
INTRODUCTION

The Conservation Element of the *Rolling Hills Estates General Plan* is concerned with the management of natural and cultural resources in the planning area. The Element identifies significant resources within the City and establishes a plan for their conservation, management, or preservation.

The Conservation Element is a state-mandated element as required by regulations in *Section 65302(d) of the California Government Code* and the *State Mining and Reclamation Act (SMARA)*. The Element is intended to increase public awareness concerning the presence and condition of natural and cultural resources and to promote their conservation and management.

The earth's resources are limited and often non-renewable. Ignorance, indifference and misuse could easily lead to their exploitation, destruction or neglect. As such, it is the City's responsibility to inform residents of the importance of local resources in relation to regional concerns. The City is empowered to regulate the use of certain local resources to prevent their destruction and exploitation and to ensure that conservation efforts are constant and equitable. Conservation includes the regulation of the extent of resource utilization, of the appropriate preservation techniques and of the conduct of activities which affect or preclude the use of resources.

Natural resources in the planning area include water, air, and biotic resources. Cultural resources include historical , archeological and paleontological sites and structures. The City's conservation plan will consist of independent programs for the managed use of mineral resources, the maintenance of good air quality, the protection of native plant and animal life and the preservation of cultural resources. The plan will help maintain ecological balance and improve the quality of life in Rolling Hills Estates.

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SECTION 5.2
GOALS AND POLICIES

The Conservation Element deals with the management of natural and cultural resources in the planning area. The Element is intended to increase awareness of the presence of natural and cultural resources in the community and to promote the conservation and management of these resources. The goals and policies of the Conservation Element address the managed use of water and land resources, the maintenance of good air quality, the protection of native plant and animal life, and the preservation of cultural resources and aesthetic amenities of the area.

Issue: Natural Environment

Local efforts to preserve the natural environment will promote harmony between nature and man. The City will support the preservation of those significant resources in the Palos Verdes Peninsula which make it unique from the rest of Los Angeles County.

Goal 1 **Preserve the natural environment of the Palos Verdes Peninsula through the conservation of natural resources, the maintenance of a balanced ecology and the prevention of environmental degradation.**

Policy 1.1 Maintain the natural canyons and hillside areas for passive open space and/or for incorporation into the Citywide trails system.

1.1.1 Implementation Measure: Implement the General Plan Land Use policy which indicates the location and extent of future land uses in the area.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.2 Encourage planting of native drought tolerant plant species to minimize erosion and to provide habitats for wildlife while being sensitive to the wildfire hazard.

1.2.1 Implementation Measure: Publish and distribute a pamphlet outlining how drought tolerant landscaping and drip irrigation can save water and be aesthetically pleasing. The City will consider establishing a demonstration garden at City Hall if needed to supplement the South Coast Botanical Gardens which illustrates how drought tolerant vegetation can be used for landscaping.

Timing: 1993-1995
Agency: Planning Department and Community Service Department
Funding: General fund and Capital Improvement Budget

Policy 1.3 Discourage the excessive grading of slopes in those areas of the City that are undeveloped such as canyons, archaeological sites, and areas with established vegetation.

1.3.1 Implementation Measure: Future development must conform to all grading guidelines and requirements in the General Plan and Municipal Code. The Cultural Resource Overlay Zone requirements (Section 5.3) must be adhered to.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.4 Require that all future developments connect to public sewers to prevent contamination and pollution of the local groundwater.

1.4.1 Implementation Measure: During site plan review, plans will be examined to ensure sewer connections are made. All new subdivisions will be required to connect to sewers.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 1.5 Develop and implement a comprehensive program for the recycling of waste such as paper, aluminum, bottles, organic waste, and motor oil pursuant with the requirements of AB939, AB1820, and AB2707.

1.5.1 Implementation Measure: The City will implement its Comprehensive Source Reduction and Recycling Element and Household Hazardous Waste Elements. The implementation of this program will be monitored by the designated environmental coordinator.

Timing: Immediate and ongoing
Agency: Public Information Officer
Funding: General fund

Policy 1.6 Participate in management programs established by Los Angeles County for water conservation, liquid and solid waste management, and flood control.

1.6.1 Implementation Measure: The City will continue to participate in programs designed to promote water conservation, recycling, and flood control. City staff (including the environmental coordinator) will review new development in the environmental review process to ensure that appropriate mitigation measures are identified.

Timing: Immediate and ongoing
Agency: Planning Department and City Manager
Funding: General fund

Policy 1.7 Provide guidelines for the protection of hillside slopes and canyons, the reduction of soil erosion and the control of the velocity of water run-off.

1.7.1 Implementation Measure: The City will review its grading ordinance and publish an informational brochure that outlines the grading ordinance requirements.

Timing: 1993
Agency: Planning Department
Funding: General fund

Policy 1.8 Inform residents of the environmental concerns regarding air quality, water resources, land and other ecological resources to solicit cooperation and support in the City's conservation plans.

1.8.1 Implementation Measure: The City will work with local organizations and other agencies in sponsoring a booth at the City Celebration and other events such as the Peninsula Street Fair, Las Amigas, and California Carriage Classic, in addition to newsletters, fliers, and brochures as needed.

Timing: Immediate and ongoing
Agency: Community Services Department and City Manager
Funding: General fund

Policy 1.9 Ensure that the long-term protection of the environment shall be a primary consideration in approving development projects. Require all future construction projects, both public and private, to mitigate their potential environmental impacts through the environmental review process.

1.9.1 Implementation Measure: City staff will prepare environmental guidelines concerning mitigation monitoring. The City will designate a staff person to serve as environmental coordinator. This person will be responsible in overseeing mitigation monitoring programs.

Timing: 1994
Agency: Planning Department
Funding: General fund

Policy 1.10 Environmental impact reports for future projects must address cumulative impacts which will include other projects on the peninsula, downstream traffic, regional air quality, sewage generation and other environmental constraints of the area.

1.10.1 Implementation Measure: City staff will compile and maintain a data base of "related projects" in the Peninsula which may result in cumulative impacts. This data base will begin with the Master Environmental Assessment that will be completed as part of the General Plan Update.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.11 The City planning staff will strengthen enforcement of planning ordinances and standards, including those regulations concerning the maintenance of private property.

1.11.1 Implementation Measure: The Planning Department will review past and present code enforcement policies to ensure they are adequate. A report will be made to the City Council and Planning Commission on an annual basis.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.12 The City will continue to assist the Lead Agency Authority for Chandler Quarry pursuant to the State Mining and Reclamation Act (SMARA) requirements related to A.B. 3551 and A.B. 3903 amendments.

1.12.1 Implementation Measure: Assist the Lead Agency by enforcing SMARA policies and Chandlers Condition Use Permit for landfill operations.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Issue: Biological Resources

The biological resources of the Peninsula are diverse and some are unique to the Peninsula. Due to existing development, the City should strive to maintain ecological balance through the protection of its remaining biological resources.

Goal 2: Preserve local plant and animal life and their habitats in the Peninsula.

Policy 2.1 Strive to protect the remaining wildlife population of the area and prevent the destruction of the remaining natural habitats.

2.1.1 Implementation Measure: All new development within areas determined to have a high ecological sensitivity will be required to submit biological field studies to identify potential impacts. All subdivision located within the Ecological Resources Overlay Zone will be required to comply with the General Plans special guidelines (refer to Section 5.3).

Timing: Ongoing
Agency: Planning Department
Funding: General fund

Policy 2.2 Preserve the existing vegetation in the open space corridors in its natural state while being sensitive to fire protection policies.

2.2.1 Implementation Measure: Implement the General Plan Land Use Policy, which calls for the maintenance and preservation of these areas through the Science Resources Overlay Zone. The City will consider establishing a demonstration garden if needed to supplement the South Coast Botanical Garden displays in order to illustrate how new development can utilize native vegetation in landscaping.

Timing: 1993 - 1995
Agency: Planning Department and Community Services Department
Funding: General fund, Capitol Improvement Budget

Policy 2.3 Encourage the re-establishment of appropriate native plants by requiring developments to prepare landscape plans that promote the preservation, protection, and enhancement of vegetation, wildlife and natural habitats.

2.3.1 Implementation Measure: The City will review and amend existing development standards if necessary so as to promote the use of native vegetation and maintenance of existing habitats.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.4 Implement the General Plan guidelines for the restoration of habitats for sensitive and/or endangered species.

2.4.1 Implementation Measure: The City will consult with local environmental organizations to participate in the restoration or development of native wilderness areas in canyons or other public open space areas. The City will encourage private open space land to do likewise. Those areas under public control will be inventoried as candidate sites for restoration.

Timing: 1994-1996
Agency: Planning Department and Community Services Department
Funding: General fund

Issue: Cultural Resources

The rich and colorful history of the Peninsula provides the area with a sense of importance and historical pride. The preservation of cultural resources will enrich the educational and cultural aspirations of residents and visitors alike.

Goal 3: Promote the preservation of cultural, historical and natural resources within the City.

Policy 3.1 Implement General Plan guidelines for the protection of sites of paleontological, archaeological, historical or culturally valuable significance.

3.1.1 Implementation Measure: New development in areas designated as having a high cultural sensitivity will be required to have archaeological surveys and on-site

monitoring when deemed necessary. All development shall be subject to the provisions of Appendix K in the CEQA Law and Guidelines.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 3.2 Encourage and support local high quality projects and programs devoted to the visual and performing arts, the sciences, the humanities, and educational programs related to these topics.

3.2.1 Implementation Measure: The City will cooperate with local organizations to promote and advertise special events and activities in the City's newsletter and public access cable.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 3.3 Develop the George F. Canyon open space at Palos Verdes Drive North and Palos Verdes Drive East from the water district's pump and extending down the canyon, as a cultural and natural preserve. Encourage a cooperative effort to extend the formal preservation of George F. Canyon into Rolling Hills and Rancho Palos Verdes Canyon.

3.3.1 Implementation Measure: Implement the General Plan which calls for the development of this area as a historic and natural preserve. The Community Services Department will establish a timetable for the planning and development of this site.

Timing: 1992
Agency: Community Services Department
Funding: Pepper Tree Foundation

Policy 3.4 Explore funding for a nature/environmental center for the City, possibly to be connected with the George F. Canyon openspace/natural preserve. Work with the City of Rolling Hills to promote the preservation of the canyon areas within its corporate boundaries.

3.4.1 Implementation Measure: Pepper Tree Foundation will explore potential funding sources for the development of the natural/environmental center. The

project will be considered for the City's five year Capital Improvement Program or through the Pepper Tree Foundation.

Timing: 1993
Agency: Community Services Department
Funding: Pepper Tree Foundation

Policy 3.5 The City will continue to assist the Lead Agency Authority for Chandler Quarry pursuant to the State Mining and Reclamation Act requirements related to AB 3551 and AB 3903 amendment.

3.5.1 Implementation Measure: Assist Lead Agency by enforcing SMARA policies and Chandler's Conditional Use Permit for landfill operations.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Issue: Air Quality

The increasing awareness on air quality issues has prompted the adoption of state and regional legislation governing mobile and stationary air pollution sources. While the City has generally good air quality, the need for standards to control pollution should not be discounted.

Goal 4: Protect and maintain the air quality of the Peninsula.

Policy 4.1 Cooperate with the South Coast Air Quality Management District (SCAQMD) and surrounding cities to develop standards for the enforcement of regulations specific to Rolling Hills Estates.

4.1.1 Implementation Measure: The City Manager will designate an environmental coordinator to ensure the City's compliance with the SCAQMD's rules and regulations.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 4.2 The City will work with the other agencies in the region to ensure that motor vehicles comply with all standards for air pollution control.

4.2.1 Implementation Measure: The City will advertise the SCQAMD's program that involves reporting polluting vehicles to that agency. The City will prepare a flyer describing the program and the City's support for its continued implementation.

Timing: Immediate and ongoing
Agency: Planning Department and City Manager
Funding: General fund

Policy 4.3 Implement the clear air strategies outlined in the Conservation Element for the City to assist in the implementation of the Air Quality Management Plan.

4.4.1 Implementation Measure: The environmental coordinator will monitor the City's effectiveness in the implementation of those AQMP measures (referred to in Section 5.3) that are the City's responsibility.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Issue: Aesthetics

The aesthetic qualities of the environment should be preserved along with its resources. Attractive vistas, panoramas and views are plentiful along the City's roadways contributing to the City's desirable environment.

Goal 5: Preserve the aesthetic quality of the area through the regulation of developments along view corridors and scenic roadways.

Policy 5.1 Encourage the preservation of view corridors and discourage developments and additions which obstruct view corridors.

5.1.1 Implementation Measure: The City will amend the neighborhood compatibility ordinance to consider preservation of significant view corridors. The criteria and guidelines listed in Section 5.3 will be implemented.

Timing: 1994
Agency: Planning Department
Funding: General fund

Policy 5.2 Implement the General Plan criteria for the designation of scenic roadways, with consideration for the visibility of scenery, major landform, vegetation, structures, and panoramas, and develop a plan for the undergrounding of existing telephone and electrical poles.

5.2.1 Implementation Measure: Implement the Scenic Highway Guidelines in the Conservation Element (Section 5.3) and works with the telephone company to prioritize the placement of telephone lines underground.

Timing: Immediate and ongoing
Agency: Planning Department and Public Works Department
Funding: General fund

Policy 5.3 Preserve the existing rural road character of Palos Verdes Drive North by maintaining the roadway's designation as a scenic corridor/roadway part of a peninsula wide loop.

5.3.1 Implementation Measure: None required. The roadway's designation is reflected in the Conservation Plan

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 5.4 Implement criteria for the designation of scenic roadways in the City and evaluate existing roadways for their qualities as local scenic routes.

5.4.1 Implementation Measure: Implement the Scenic Highways Guidelines and overlay as outlined in the Conservation Plan.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 5.5 Implement criteria and procedures for the preservation and beautification of present and future roadways and for the designated scenic roadways.

5.5.1 Implementation Measure: The City will review existing ordinances and regulations to ensure the guidelines related to preservation and beautification of roadways are reflected.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 5.6 Continue to promote the rural environment of the City by discouraging light and glare except where lighting is required for public safety.

5.6.1 Implementation Measure: The City will require the use of low pressure sodium lighting for parking areas, street lighting, and other exterior lighting.

Timing: 1993
Agency: Planning Department
Funding: General Fund

Issue: Grading and Landforms

Grading and construction activities could disrupt the stability of soils and create geologic hazards. The City will make every effort to make sure new development will not result in unstable soils, soil erosion, or landslide.

Goal 6: Minimize grading and significant changes in the natural topography and grading activities should be designed to preserve the unique and significant cultural and biologic features to maintain the identity, image and environmental qualities of the City.

Policy 6.1 Evaluate and distinguish between the destruction of land and the enhancement of land. Discourage any grading beyond that necessary to create adequate building pads and reasonable recreation areas for equestrian use, pools, tennis courts, etc.

6.1.1 Implementation Measure: The City will review all grading plans to ensure they are in compliance with City standards.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 6.2 The project review process must give major consideration to the health, safety, and welfare of the community without violating the homeowners' rights to modify/improve their property.

6.2.1 Implementation Measure: All new development will be reviewed by the environmental coordinator to make sure that this development will not adversely impact neighboring properties or residents.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 6.3 Preserve natural land forms, vegetation, and wildlife by requiring more stringent regulations for the development and alteration of slopes greater than 2 to 1.

6.3.1 Implementation Measure: The City will review existing hillside and grading ordinances to make sure they reflect current City standards and amend these if necessary.

Timing: 1993
Agency: Planning Department
Funding: General fund

SECTION 5.3
CONSERVATION PLAN

INTRODUCTION

Most of the City is presently developed and open space is limited. Over time portions of the remaining undeveloped areas that are privately owned will experience pressure to develop. Nevertheless, the lower density character of the City, the City's topography, and canyons that have been maintained for recreation use, provide an abundance of opportunities for resource conservation.

A study was conducted as part of this General Plan to identify those areas within the planning area where significant resources are found. Many of these areas were not originally developed because they are subject to environmental constraints. These constraints include flooding problems, excessive slopes, and soil limitations. A substantial portion of the undeveloped land is located in those areas that are subject to these environmental constraints.

LAND USE POLICY

Land use policy outlined in the Land Use Element is instrumental in protecting many of the natural and cultural resources identified as being significant. A number of land use designations overlay zones will be used in either preserving environmentally significant areas or substantially reducing potential impacts from development through more stringent development standards. The base land use categories that will be effective in conserving important resources include the following:

> *Open Space:* This designation applies to parkland and open space lands which are not going to be developed during the life of the General Plan. This designation applies to public parks, canyons, and other public and private land reserved from development.
>
> *Institutional:* A number of public and private uses are included in this category. Portions of these uses could be used for resource conservation purposes.
>
> *Commercial Recreation:* This category of development applies to a variety of land uses including private equestrian facilities, golf courses, and other types of privately-owned land used for recreational activities.

A number of General Plan Conservation Overlay Zone designations are included in the Land Use Element. While not all Conservation Overlay Zones will be expressly used for

preserving environmentally significant areas, the majority indicates those areas where development standards are more stringent. In this way potentially adverse impacts from development can be minimized. The Overlay Zones include the following:

> ***Ecological Resource Overlay:*** This overlay designation applies to those portions of the planning area where sensitive habitats are located.
>
> ***Scenic Corridor Overlay:*** The scenic corridor designation applies to the major roadways in the area that have been designated as scenic corridors.
>
> ***Cultural Resource Overlay:*** This designation applies to those areas that have been designated as having a high sensitivity for cultural resources and where future development may affect these resources.
>
> ***Multi-Use Trail Overlay:*** The Open Space and Recreation Element's Master Plan of Trails indicated the placement of future trails and maintenance of existing trails. The Overlay Zone indicated the location and extent of both existing and future trails.

The following sections of the Conservation Plan describes standards and guidelines that apply to each overlay designation.

RESOURCE MANAGEMENT GUIDELINES

There are a number of goals and policies in the General Plan that are concerned with the maintenance, preservation, or conservation of natural resources. These natural resources include important ecological habitats found in the planning area. These policies will be effective in mitigating the impacts of development on sensitive ecological areas within or adjacent to properties undergoing development. The focus of the Resource Management Guidelines is to provide further direction related to the maintenance and preservation of these resources.

Significant natural resources within the planning area are described in detail in the Conservation Element Background Report (Section 5.4). For planning purposes, three sensitivity categories have been developed to identify the planning area's sensitivity to development. This sensitivity rating is described as follows:

> ***Low Sensitivity:*** Areas with no significant natural habitats are in this classification. Past development in the urbanized areas is likely to have destroyed or significantly altered native plant communities and animal habitats. This designation is not

intended to undervalue the importance of introduced or existing vegetation in the developed areas.

Moderate Sensitivity: A number of areas in the City have been developed at densities sufficiently low so that remnants of environmentally significant habitats remain. In addition, some development is located adjacent to ecologically significant zones, which could be adversely impacted by any increase in density or intensity of development.

High Sensitivity: The Resource Management Technical Report identified those portions of the planning area that are judged to be ecologically significant by biologists and naturalists. These areas correspond with the Ecological Resource Overlay Zone shown in Exhibit 5-1. The Zone corresponds to those areas identified as having a high sensitivity. Areas presently developed are not included in overlay.

Development proposals within those areas with high sensitivity ratings identified in Exhibit 5-1 will be reviewed to determine the extent of significant ecological resources on the property and the potential impacts new development will have on these resources. The location of sensitive lands as shown in Exhibit 5-1 is generalized and not parcel-specific. Exhibit 5-1 is a tool to be used as an aid in locating sensitive lands, but is not an exact or exclusive determinant. However, a detailed identification and review of the presence of sensitive resources will be required with each development proposal within the areas located designated as having a high sensitivity.

For those areas located within the Ecological Overlay Zone, the guidelines listed below apply to new large scale development. The guidelines do not apply to minor lot improvements which might be undertaken by individual homeowners:

- Field surveys to identify potential resources must be undertaken prior to any development or significant alteration of these areas.
- Any fuel modification program for fire prevention must be evaluated by knowledgeable professionals to ensure appropriate mitigation is followed.
- All new development in these areas must undergo appropriate environmental review pursuant to the California Environmental Quality Act.
- Trustee agencies including the California Department of Fish and Game and local environmental organizations such as the Audubon Society must be

notified of large scale development proposals as part of the environmental review process.

- When threatened and/or endangered species are encountered, the directives of the Department of Interior and the State of California Department of Fish and Game will be considered.

Preservation of Scenic Visual Resources

A number of policies in the General Plan are concerned with preserving scenic and visual resources in the planning area. For example, the Recreation Element provides for the development and maintenance of points within the existing parks, while the Land Use Element promotes urban design through the continued implementation of the neighborhood compatibility ordinance.

This section of the Conservation Element includes a Scenic Roadways Overlay Zone that identifies those corridors containing significant aesthetic and visual resources. Proposals for new development need to be evaluated to ensure that significant views along these corridors will be preserved. This designation is also applied to those roads that have been previously identified as Scenic Highways. Exhibit 5-2 indicates those areas and roadways that have been placed with a Scenic Roadways Overlay Zone.

The following criteria were used in designating Scenic Corridors in the City:

- Areas which characterize the rural or urban form of the City of Rolling Hills Estates.
- Significant historic places or sites of interest.
- Outstanding topographic features or unique natural features.
- Urban design and architecture unique to the City of Rolling Hills Estates.
- Important viewsheds where preservation is warranted.

The following guidelines will apply to all scenic roadways and corridors:

- The designated route must traverse an aesthetically significant viewing corridor.

City of
Rolling Hills Estates

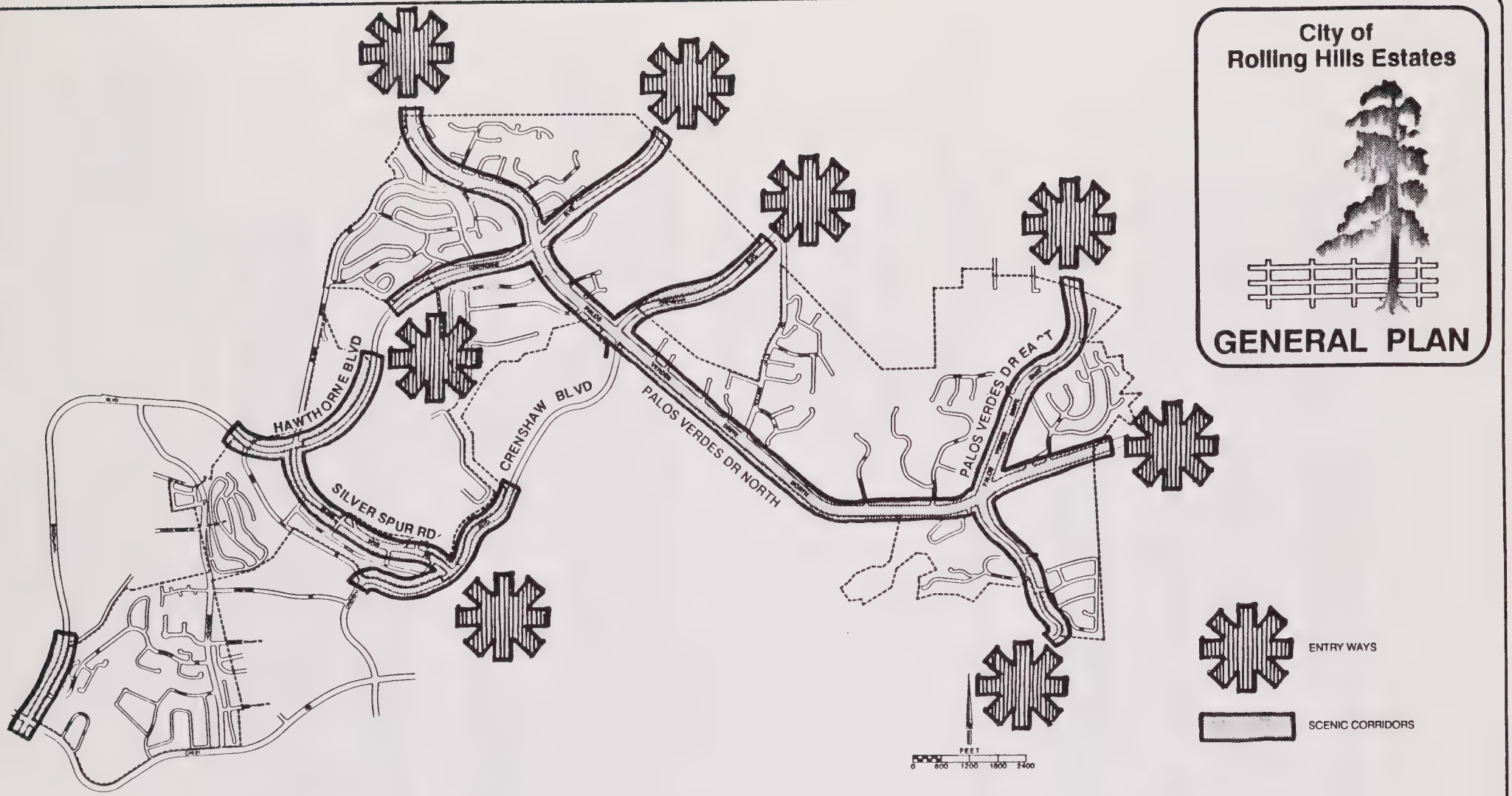
GENERAL PLAN



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ECOLOGICAL OVERLAY ZONE

Exhibit 5-1



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SCENIC HIGHWAYS OVERLAY

Exhibit 5-2

- The route should be a significant entry into the City and those entryways should be marked with appropriate landmarks.

- The establishment of a Scenic Route must be consistent with traffic circulation and will not affect the integrity of the area it traverses.

- The scenic route system must be consistent with the capability of existing street systems and will not necessitate expansion.

- Any improvement associated with a scenic route will be consistent with the character of the community and not result in any significant environmental impacts.

Pursuant to the above criteria, the following corridors (shown in Exhibit 5-2) have been placed within the Scenic Roadway Overlay Zone:

- Hawthorne Boulevard

- Palos Verdes Drive North

- Crenshaw Boulevard

- Silver Spur Road

The protection of scenic corridors is based on standards which will prevent the alteration of the significant views. Where it is determined by the City that specific portions of a scenic route require upgrading, a program of improvement will be established. The following principles provide a comprehensive outline of applicable standards that must be adhered to in future development.

- *City Approval*. New projects planned along a Scenic Route will be subject to a comprehensive design review process outlined in the neighborhood compatibility guidelines.

- *Grading*. Site preparation or cutting of hillside will be conducted in a manner where it is least visible from designated scenic corridors.

- *Exterior Light*. Exterior lighting along scenic corridors will be limited to those systems necessary for security and safety. Lighting intensities will be kept to the lowest possible levels and all such lighting will be screened and directed

away from view of scenic routes. Special attention will be paid to the design of light poles used in the corridors, traffic signal standards, and other equipment.

- ***Landscaping***. Landscape plantings along scenic corridors will be regulated to prevent the blocking of the view of such corridors. Landscape beautification of scenic routes will be considered and, where necessary, a program for improvements commenced.

- ***Structures***. The construction, placement or relocation of any structure will not block or impair the view of any Scenic Corridor and these structures will be harmonious with surrounding uses.

- ***Utilities***. All new utility lines will be installed underground and a program of undergrounding existing utility lines along Scenic Corridors as expeditiously as practicable will be initiated.

- ***Land Uses***. Land uses which will have an adverse impact on any Scenic Corridor will be prohibited.

- ***Signs***. Signage along Scenic Routes will be regulated to prevent interference with the viewing of Scenic Corridors. Key entryways to the City will be attractive and well-maintained.

- ***Equestrian and Bicycle Routes***. Will be developed as part of the City's Scenic Route System wherever possible.

- ***Route Improvement***. A review of Scenic Routes in the City will be conducted to determine which features along that route will be screened or upgraded in the future.

Neighborhood Compatibility Guidelines

In addition to satisfying the pertinent requirements of the specific residential district, the following design criteria and review processes have been established to protect, and maintain the established character of all residential neighborhoods in the City:

- ***Natural Amenities.*** Improvements to residential property shall respect and preserve, to the greatest extent possible, existing topography, landscaping and natural features.

- ***Neighborhood Character.*** Proposals shall be compatible with the existing neighborhood character in terms of architectural style and materials, and the scale of development in relation to surrounding residences.

- ***Scale.*** While many elements can contribute to the scale of a residential structure, designs should minimize the appearance of overbuilt property to both public and private view. The square footage of the residence and the total amount of lot coverage should reflect the rural character of the City and the respective neighborhood.

- ***Style.*** Proposals shall address the following design elements to ensure the compatibility of development:

  Facade treatments shall be designed to avoid stark, unbroken exterior walls and in general, shall be compatible with facade treatments in the neighborhood.

  The height of structures shall reflect the rural character of the City as well as maintain consistency with neighboring properties.

  Open spaces between proposed structures and subject property lines shall reduce the appearance of an overbuilt lot.

  Roof design shall incorporate pitches that are compatible with the neighborhood.

  The apparent bulk or mass of the structure shall be consistent with surrounding properties in the neighborhood.

Any appurtenances incorporated into the design plan (including, but not limited to: greenhouses, turrets, towers, chimneys, penthouses, solariums, porticos/loggias, atriums, garden walls and fences) shall be constructed so that they are compatible with the neighborhood.

- *Privacy.* Proposed development shall be designed to preserve the open space and rural character of the surrounding neighborhood. Designs shall incorporate and maintain an adequate amount of separation between the proposed structure(s) and adjacent property lines. In addition, balconies, decks and windows will also be designed to respect the existing privacy of surrounding properties.

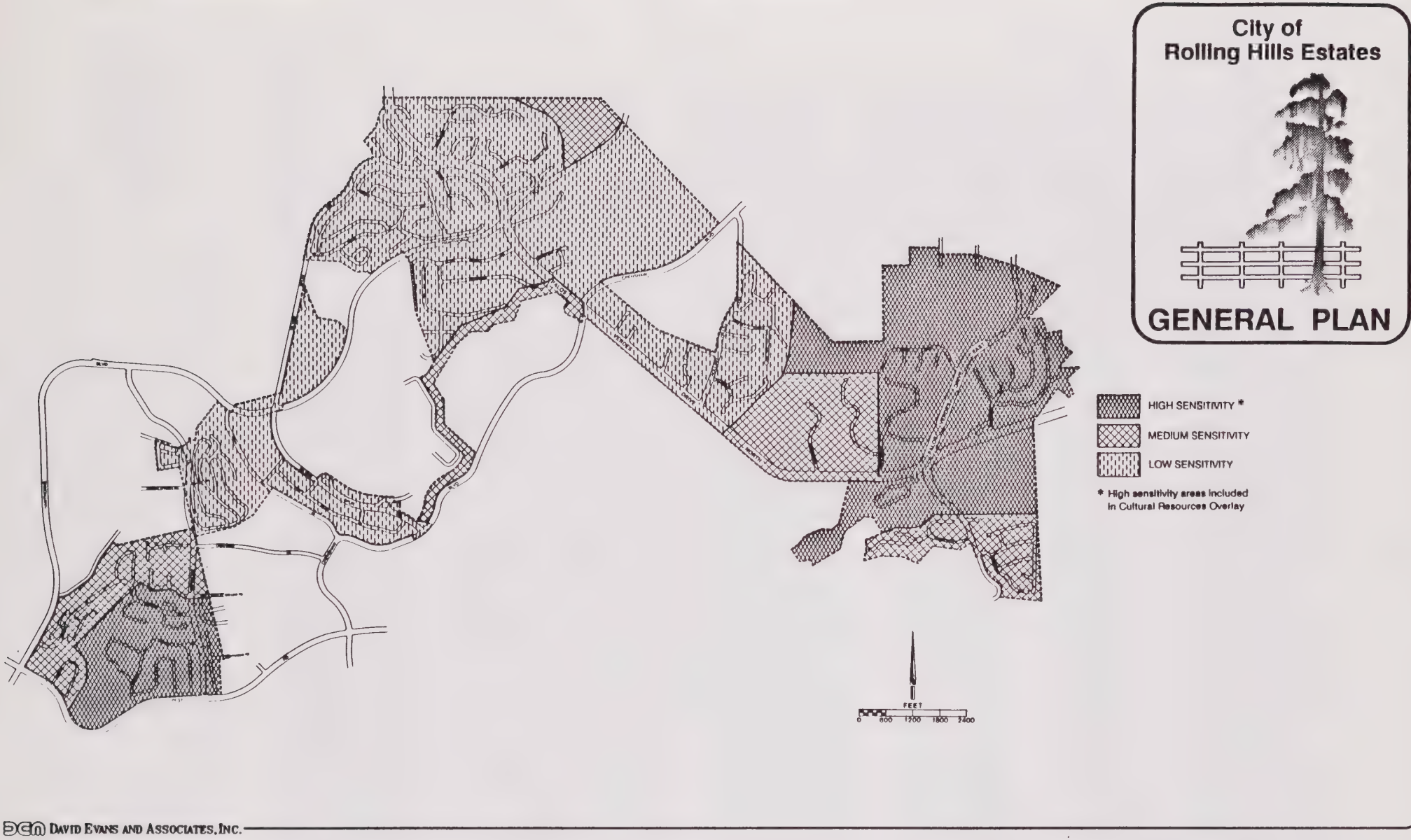
- *Landscaping.* Designs shall incorporate existing and additional landscaping to ensure compatibility with the surrounding neighborhood. Landscaping shall not be used to create hedges in front yard areas nor diminish the open, spacious character of a neighborhood.

- *Views.* Development will be designed with respect for neighboring views as required by the View Protection Ordinance, Section 1950.

Cultural Resource Management

Cultural resource management and historic preservation require the cooperation of many government agencies. Rolling Hills Estates alone, however, has the ability to preserve and enhance many of the City's cultural resources. Furthermore, it is the City's desire to establish facilities and programs which will inspire appreciation for the City's past and will encourage participation in a wide range of educational and social activities. The Cultural Resources in the City and their importance to the community is underscored in the designation of George F. Canyon open space as a natural and cultural preserve.

The existence of rich cultural resources in the Peninsula present some challenges for future development in the City. Some protection is afforded through The California Environmental Quality Act which requires that a project be considered "significant" in terms of impact if it will disrupt or adversely affect a site of archaeological, paleontological, or



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CULTURAL RESOURCES OVERLAY

Exhibit 5-3

historical significance. Protection of these resources during construction activities generally involve the salvage and curation of materials discovered at the site. Future development within the planning area and surrounding region is certain to result in the discovery of new sites. Other sites will also undoubtedly be discovered through the efforts of future archaeological field surveys.

A map indicating cultural resource sensitivity is provided in Exhibit 5-3. This exhibit identifies those areas where there is a high probability of discovering archaeological sites in the course of new development. A sensitivity rating has been applied to all of the planning area and is described as follows:

> *Low Sensitivity:* Areas of low cultural resource sensitivity include those lands which have been surveyed with the express purpose of identifying cultural resource sites but which provided negative results. Low sensitivity areas also include land where development or grading has resulted in the movement or relocation of massive amounts of earth.
>
> *Moderate Sensitivity:* Areas of moderate sensitivity include those lands which have been developed or altered by means which may not have resulted in the removal or relocation of earth on a large scale. Depending on the methods by which urbanization was accomplished, variable degrees of destruction to cultural resources can result. For example, agricultural fields represent areas where the surface has been disturbed though any buried artifacts have been preserved.
>
> *High Sensitivity:* High sensitivity areas within the Peninsula planning area include those areas which have not been previously surveyed or have been subject to historic human disturbance other than agriculture. Based on the demonstrated prehistoric settlement pattern for coastal Southern California and on the density of recorded archaeological sites within the planning area, those portions of the planning area which retain their natural character and which have not been subject to surveys specifically related to the identification of cultural resources are considered to have a high potential for the presence of cultural resource sites.

A substantial number of archaeological sites have been discovered in those areas of the City that have undergone past development. For this reason, any proposed project that involves a significant amount of grading should have an archaeological survey conducted prior to construction. In addition, archaeological resources may be discovered in the course of construction and appropriate measures must be taken to ensure that artifacts are recorded and salvaged.

The City of Rolling Hills Estates will seek to avoid damaging effects on an archaeological resources whenever feasible. If avoidance is not feasible, the importance of the site shall be evaluated according to the following criteria.

- The site's association with an event or person of recognized significance in California or American history, or scientific importance in prehistory.
- The site's ability to provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions.
- The site's special or particular qualities such as oldest, best example, largest, or last surviving example of its kind.
- The site's age being at least 100 years old and its stratigraphic integrity.
- The site's potential for answering important research questions that historical research has shown can be answered only with archaeological methods.

In-situ preservation (leaving the site as is) is the preferred manner of avoiding damage to archaeological resources. Preserving the site is more important than preserving the artifacts alone because the relationship of the artifacts to each other in the site provides valuable information that can be lost when the artifacts are removed. Further, preserving the site keeps it available for more sophisticated future research methods. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

Avoiding damage to significant archaeological sites may be accomplished by any of the following approaches:

- Planning construction to miss archaeological sites;
- Planning parks, greenspace, or other open space to incorporate archaeological sites;
- "Capping" or covering archaeological sites with a layer of soil before building tennis courts, parking lots, or similar facilities. Capping may be used where the soils to be covered will not suffer serious compaction; the covering materials are not chemically active; the site is one in which the natural

processes of deterioration have been effectively arrested; and the site has been recorded.

- Deeding archaeological sites into permanent conservation easements.

The City of Rolling Hills Estates has established additional guidelines for preserving potential archaeological resources in the community. The Conservation Element provides for a Cultural Resource Overlay Zone which is shown in Exhibit 5-3. Future development within this overlay zone must comply with the following guidelines:

- An archaeological report must be provided to the City's environmental coordinator documenting known or suspected sites as part of the environmental review.

- An archaeologist must be present during excavation or grading as part of the mitigation monitoring program.

- All procedures related to the excavation and disposal of resources must comply with Appendix K of the CEQA Law and Guidelines.

California State Assembly Bill AB 492 and the adoption of the Appendix K in the CEQA Law and Guidelines provide direction with regard to the mitigation, preservation, or salvage of significant archaeologic resources that are affected by development. The City will comply with the following provisions of CEQA in the event a significant archaeological site is discovered.

- An excavation plan will be prepared according to the requirements outlined in CEQA-Appendix K;

- If it is impossible to avoid disturbing the site through revisions in project design, the Lead Agency will initiate salvage efforts according to the parameters outlined in Appendix K, Section VII of the CEQA Law and Guidelines.

- In the event of the discovery of human remains, procedures outlined in Section VIII of Appendix K contained in the CEQA Law and Guidelines will apply.

Air Quality Improvement Program

The City of Rolling Hills Estates is largely a suburban community with no polluting industrial activities.

Many local businesses are covered by Air Quality Management District (AQMD) regulations. Examples of the types of businesses regulated include those which conduct metal plating; manufacture fiberglass and plastic products; use or store organic solvents; utilize degreasing equipment; and use materials which emit hazardous air pollutants. Landfills are also subject to regulation. The AQMD controls solvent emissions from dry cleaners, print shops, metal platers, etc. Even commercial restaurants are subject to AQMD regulations covering charbroilers.

Any new, or modified existing, source of emissions that emits more than 1 pound a day of a regulated air pollutant is subject to the requirements of the recently revised AQMD Regulation XIII, which requires that all increases in emissions be offset by achieving at least an equal amount of reductions from existing sources. Small sources, i.e. sources emitting less than 2 tons/year of any regulated contaminant, are eligible to receive these offsets from the Community Bank, which is funded through shutdowns of facilities throughout the Basin. In addition, new or modified equipment is required to install Best Available Control Technology (BACT), as specified by the AQMD.

Facilities which do not directly emit pollutants but which attract concentrations of motor vehicles are referred to as indirect sources. Within this category, facilities with 100 or more employees are regulated by the AQMD's Regulation XV.

The South Coast Air Quality Management District's Regulation XV applies to all facilities which employ 100 or more persons at a single site. Employers subject to the regulation are required to develop plans which include sufficient incentives to bring the average vehicle ridership in employee vehicles to 1.5 persons. Some of the existing uses that will be subject to Regulation XV include the Northrop development, and the local High School.

The 1989 Air Quality Management Plan (AQMP) calls for local governments to specify the measures they will use to improve air quality in Air Quality Elements which are to be amended into each local General Plan. Emphasis in these elements is to be on actions to reduce local contributions to air pollution from vehicle trips, energy usage, local vehicle congestion (a major cause of carbon monoxide buildups), and local sources of particulates, including grading and construction. Those measures that apply to Rolling Hills Estates are summarized below:

- ***Parking Management.*** The purpose of this strategy is to discourage use of single occupancy vehicles by restricting parking. Suggested measures in this category include:

    1. Increase daytime parking fees.
    2. Establish a surcharge on parking for single-occupant vehicles and/or a discount for multi-occupancy vehicles.
    3. Eliminate peak-period on-street parking.
    4. Eliminate 100% employer subsidized parking.
    5. Require employer-sponsored preferential parking for ridesharers for employers of 100+ employees (short-term) and 25+ employees (long-term).
    6. Implement short-term commercial parking zones.
    7. Implement park and ride lots with shuttle service.
    8. Increase parking enforcement.
    9. Establish a cap on the number of parking spaces permitted per square foot for a particular use.
    10. The environmental coordinator will provide data, monitor progress and effectiveness of the ordinance, and report results to SCAG annually.

- ***Auto Use Restrictions.*** This measure is directed at restricting vehicular traffic in areas with high pedestrian traffic. It is also directed at reducing congestion around centers such as the Rose Bowl, Anaheim Stadium, Disneyland, or any special event center with a capacity in excess of 10,000 vehicles. While no land use activity within the planning area falls into this category, provisions should be made to restrict auto use at other major generators such as schools. For cities which have such centers, ordinances are to be adopted which require off-site facility lots, shuttle buses, auto-free zones in the immediate vicinity of the event, etc.

- ***Truck Dispatching.*** This measure is directed at facilitating improved truck routing and delivery to reduce competition with peak hour automobile traffic. The measures call for ordinances and voluntary agreements with local businesses and delivery companies to change truck traffic to non-peak hours.

- ***Growth Management.*** This measure is directed at improving job/housing balance in order to reduce vehicular miles traveled. It is based on the assumption that if people live and work in closer proximity, there will be less need to travel long distances. In the 1991 AQMP, job/housing balance is

changed to growth management and the goal is reductions in vehicle miles traveled through a number of actions, including job/housing balance.

Mineral Resources/Geology

Section 5.4 of the Conservation Element describes the existing significant mineral resources in the City. As indicated in the Background Analysis and as shown in Exhibit 5-4, the State of California Division of Mines and Geology has assigned Mineral Resource Zone (MRZ) designations throughout the City. Only the northeastern portion of the City (refer to Exhibit 5-4) has been placed in a *MRZ-2* designation which applies to areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. The presence of construction aggregate resources in the vicinity of Chandler Quarry led to the *MRZ-2* designation.

The land use policy, as it applies to the Mineral Resource Zone designations does not promote the maintenance or preservation of the continued extraction of these resources. The Chandler Quarry area has been designated for lower density residential development in areas where this is feasible and commercial recreation in areas of uncompacted fill. The land use policy reflects the continuing reclamation program being undertaken by the property owner.



City of Rolling Hills Estates



GENERAL PLAN

LEGEND

------ CITY BOUNDARY

MINERAL RESOURCE ZONE BOUNDARIES

MRZ-3

- **MRZ-1** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2** Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- **MRZ-3** Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- **MRZ-4** Areas where available information is inadequate for assignment to any other MRZ zone.

DAVID EVANS AND ASSOCIATES, INC.

MINERAL RESOURCES

Exhibit 5-4

SECTION 5.4
BACKGROUND REPORT

INTRODUCTION

The Conservation Element Background Report identifies the biological, groundwater, mineral, air quality, and cultural resources of the planning area. These are nonrenewable or limited resources in the environment which need to be preserved and managed in order to ensure that they are available for future generations. Conservation, managed use and development of local resources will limit the disruption of natural cycles and lead to ecological balance.

GEOLOGY AND GROUNDWATER RESOURCES

The majority of the Palos Verdes Peninsula is a consolidated rock formation where no groundwater resources are found. At the northern foot of the Palos Verdes Hills, groundwater levels are between 20 to 30 feet below sea level. The Los Angeles River winds down to the area from the Coast Range Mountains. The river originally emptied into the area which now includes the cities of Compton, Torrance, Wilmington and Lomita. Heavily wooded areas and shrubs were found on the north side of the peninsula in the vicinity of the original stream bed. During the great flood of 1825, the river cut its way through a gorge into the present site of the Los Angeles Harbor, thus, draining the higher swamp lands. As water receded from the area, native trees, left with no water source, soon disappeared. Extensive landscaping by the first developers of the area has resulted in the revegetation of both native and non-native trees.

Mineral Resources

The Palos Verdes Peninsula contains soil formations which include a variety of sedimentary rocks. As part of the mineral land classification of the Greater Los Angeles area, all areas in the region were evaluated for the presence of significant mineral deposits. Most of the Palos Verdes Peninsula and the City of Rolling Hills Estates have been classified as areas where no significant sand and gravel resources are present and little likelihood exists for their presence. Only a small portion is classified to have a potential for sand and gravel resources.

The San Pedro sandstone is a marine deposit which can be seen on the northern and northeastern edges of the Palos Verdes Hills. This sandstone layer forms a belt from San Pedro to Malaga Cove. The San Pedro sandstone is believed to have formed in a cold-water marine environment during the period of glaciation. Tectonic uplift of the entire Palos Verdes Peninsula left the marine deposits hundreds of feet above sea level. The

sandstone consists of quartz and feldspathic sands which are poorly consolidated, unaltered, coarse and uncemented. They extend to depths of 600 feet and are mainly homogenous, containing less than 2 percent pebbly gravel. The sandstone is covered by mid-Pleistocene (1 million years before present) to Holocene (past 10,000 years), non-marine terrace 50 feet thick for the most part and up to 100 feet in others.

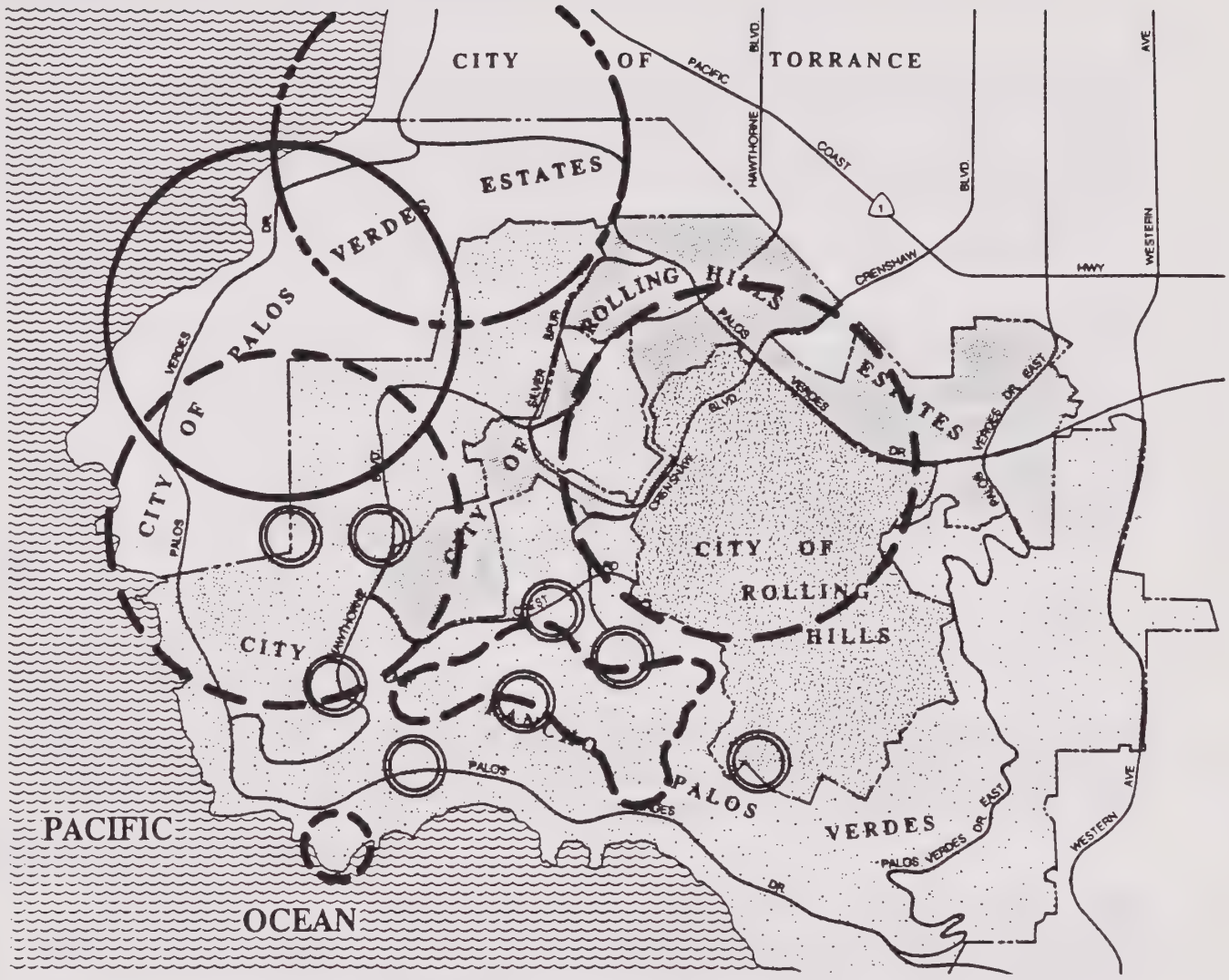
The areas where mining has historically taken place (Chandler quarry and some areas north of the City) are designated Significant Mineral Aggregate Resource Areas (SMARA) by the State of California Division of Mines and Geology. The remaining areas around the quarry site and to the east and north of the city have been classified as potentially significant areas. They are underlain by San Pedro sandstone but the lack of adequate data on the quality of resources precludes their classification as significant resource areas. Exhibit 5-4 shows the mineral land classification of the area.

The Chandler quarry is a 127-acre site which was used for the mining of sand and gravel between the years of 1936 and 1988. Intermittent mining activities also occurred on-site from 1921 to 1936. Later, sand and coarse aggregate was imported from the San Gabriel Valley for the manufacture of Portland cement on-site. The quarry was a local source of Portland Cement concrete sand, plaster sand, masonry sand and gunite sand. The operators of the quarry ceased mining operations in 1988, except on a small section of the site where the manufacture of concrete continues. Today, approximately 60+ acres of quarry pits are used for a compacted landfill operation which is expected to take approximately 10 years to fill. Fill is presently accepted on-site as part of the land reclamation program.

NATIVE VEGETATION AND ANIMAL LIFE

Common birds that inhabit the planning area include the mourning dove, spotted dove, house finch or linnet, hummingbirds, scrub jay, mockingbird, sparrows, and brown towhee. Less common birds are the Brewer's blackbird, bush tit, crow, red-shafted flicker, killdeer, western meadowlark, orioles, peafowl, California quail, raven, robin, starling, cliff swallow and rufous-sided towhee. Shorebirds, such as seagulls, California gull, ring bill gull, Bonaparte's gull, western gull, Heermann's gull, terns, brown pelican, common loon, American coot, are also found in the area. Occasional winter bird visitors may also be spotted. A list of birds found in the area is included in the Master Environmental Assessment.

Other wildlife in the area includes the striped skunk, cottontail rabbit, jack rabbit, opossum, pocket gopher, grey fox, red fox, coyote, field mouse, domestic cats, western toads, frogs, and tree toads. A number of reptiles, such as the Pacific rattlesnake, Pacific gopher snake,



LEGEND

- PALOS VERDES BLUE BUTTERFLY
- CALIFORNIA GNATCATCHER
- MOHAVE TUI CHUB
- MEXICAN FLANNELBUSH

SCALE : MILES

Note:
Information applies to the Redondo Beach and Torrance 7 1/2 MIN. U.S.G.S. Quadrangles.

Source: California Dept. of Fish and Game

City of
Rolling Hills Estates



GENERAL PLAN

DAVID EVANS AND ASSOCIATES, INC.

SENSITIVE HABITATS

Exhibit 5-5

California king snake, foothill alligator lizard, California slender salamander, and western fence lizard are also found in the area.

The oak trees, eucalyptus trees, junipers and evergreens that line the City's streets and parks are introduced species. The occurrence of local development has left only limited areas with native vegetation. The remaining areas include the canyons, parks and open spaces, and the open areas on individual lots which have steep slopes. Native vegetation and other plant species which survive in the wild include some species of cacti, trees, grasses, wildflowers, and shrubs. Plant species found in the Peninsula are listed in Appendix A .

A record search was conducted, using the Natural Diversity Database of the California Department of Fish and Game, to document the known occurrences of endangered species in the Peninsula. The database, consisting of information obtained from Federal and State agencies, identified plants and animals found in the Peninsula which have been listed as endangered, rare or threatened, as well as those considered by the scientific community to be endangered. A summary of the record search is discussed below. Large circles in Exhibit 5-5 represent non-specific localities where a species may be found or where suitable habitat exists.

Palos Verdes Blue Butterfly
Glaucopsyche lygdamus palosverdesensis

The Palos Verdes Blue Butterfly is a small blue butterfly which may have evolved during the Pleistocene period, when the Peninsula was an island. In 1977, the butterfly was found in only eight colonies on the Palos Verdes Peninsula, where the caterpillars fed on a wild species of locoweed (Astragalus).

The Butterfly was first discovered in 1976 in a large coastal scrub terrace near Alta Vista Way within the City of Rancho Palos Verdes. In 1978, road and housing construction destroyed this habitat. The Butterfly was spotted again, in 1981, near the intersection of Seacrest Road and Crenshaw Boulevard and along Crenshaw Boulevard between Altamira and Portuguese canyons. Grading activities in 1982 and 1983 destroyed the habitat near Seacrest and Crenshaw. The Astragalus habitat along Crenshaw Boulevard has been reduced and no more Butterfly sightings have been made in this area. The site is presently developed as a park.

The Agua Amarga Canyon area was once a habitat for the Palos Verdes Blue Butterfly and Astragalus. While gophers and weeds have destroyed the Astragalus, the area remains open space with no development. Weed management may allow the reintroduction of the Astragalus and Palos Verdes Blue Butterfly.

Astragalus was last seen in Altamira Canyon in 1982. The site remains undeveloped with coastal sage scrub habitat. The plant also grows along the trails of Portuguese Bend, but the Palos Verdes Blue Butterfly has not been observed in these areas. The trails are not heavily impacted and could be utilized in reintroduction efforts.

The Palos Verdes Blue Butterfly was also found at the top of San Pedro Hill in 1981. Grading activities have since destroyed the native habitat at this site. Annual grasses and ornamental plants have taken the place of the Astragalus and only three colonies were found here in 1986.

The Fred Hesse Park, just west of the City of Rolling Hills Estates, originally had undeveloped areas designated as native plant and nature study areas. Park development in 1982, however, destroyed the Butterfly habitat and its larval foodplant, the Astragalus. Restoration of the Astragalus habitat in this area is believed to be possible.

Five of the original eight Palos Verdes Blue Butterfly colonies have been destroyed by private development. Off-road vehicle use, weed abatement and construction have uprooted most of the Astragalus in the Peninsula. The Palos Verdes Blue Butterfly was classified as "Endangered" in the Federal listing in 1980; however, no efforts were made to preserve the remaining three colonies of the Palos Verdes Blue Butterfly. In 1983, a baseball field was built on the site of the last remaining colony. No butterflies have been seen since then. The species is presumed to be extinct but the Fish and Wildlife Service has not removed it from its list in the hope that the Palos Verdes Blue Butterfly will come alive after lying dormant for years, as some species of moths are known to do.

California Gnatcatcher
Pilioptila californica

The California Gnatcatcher is a tiny, very active, gray or olive bird with an eye ring or line over the eye and body. The California Gnatcatcher is a Category 2 candidate species in the Federal listing. Category 2 candidate species are threatened and/or distribution data are insufficient to support placing them on the Federal listing. The species is presumed to still be in existence, in the planning area.

In 1989, several pairs of the gnatcatcher were observed in the Marineland area, around Sunnyridge Road in the City of Rolling Hills, along Forrestal Road in Rancho Palos Verdes, and in the Agua Amarga Canyon in Rolling Hills Estates. These areas are sage scrub and coastal sage scrub habitats where California sagebrush, wild buckwheat and black sage are

abundant. The habitat areas are all owned by private entities and threatened by urban development.

Mohave Tui Chub
Gila bicolor mohavensis

The Mohave Tui Chub is a chunky fish with an olive-brown back and a white to silver belly. The fish may be found in weedy shallows of lakes or the quiet waters of sluggish rivers. It feeds on aquatic plants, insects, snails, small clams, crayfish and plankton. The Mohave Tui Chub once inhabited the deep pools and slough-like areas of the Mohave river. Today, this river and its lakes are desert playas (dry lakes). The construction of reservoirs on the Mohave have altered flow directions and the chubs have interbred with several introduced species.

Very few genetically pure Mohave Tui Chubs could be found in 1967. The Mohave Tui Chub is listed as an Endangered species in both Federal and State listings. Attempts to transplant the Mohave Tui Chub have generally failed. Transplants at the South Coast Botanic Garden Refugium were temporarily successful but the species has become extinct since 1976.

Mexican Flannelbush
Fremontodendron mexicanum

The Mexican Flannelbush plant is a Category 2 candidate species in the Federal listing and Rare in the California listing. Rare species are species whose occurrences are threatened and/or will soon be threatened. The Mexican Flannelbush is found in chaparral habitat, most of which has been destroyed in the area.

Solitary flannelbush may be found on the hillsides, oak woodland and chaparral areas, approximately 1 mile from the ocean on Via Del Monte.

AIR QUALITY

Meteorology and Climate

The climate of the Palos Verdes Peninsula is mild and pleasant year-round with maximum temperatures ranging between 44 and 63 degrees Fahrenheit in winter and between 60 to 85 degrees Fahrenheit in summer. From one-half to one-third of all days in a year are clear. Sea breezes are from the west and have an average speed of 6.5 miles per hour.

Seacoast fog and warm marine air from the open sea keep the climate comfortable through summer days when temperatures are high.

Smog is rare and generally associated with lower elevations. When there is smog, sea breezes from the Pacific Ocean generally blow the smog inland by mid-morning each day. Intermittent fog may occur from June through September. The higher areas are often cooler than the flatlands because the hills are enveloped by marine air. The lower slopes of the city are slightly warmer. The canyon areas also have cooler temperatures due to air drainage, which results from cold air seeking the lowest elevations in canyons and valleys.

The Santa Ana winds, which blow from the northeast between the months of October through March, do not generally reach the Peninsula. When the Santa Ana's are strong enough to reach the area, they affect only the northern and eastern slopes of the Palos Verdes Hills. When the Santa Ana winds are blowing, the air is dry with 10 percent or less humidity.

Annual rainfall in the peninsula is 11.72 inches with about 15 inches of rainfall in the upper elevations and 11 inches on the lower areas.

Characteristics of Air Pollution

The importance of clean air is validated by the effect of air pollutants on the environment. Air pollution is known to cause physiological damage to both man and his environment. Ozone (O_3) is a colorless toxic gas which irritates the lungs and damages materials and vegetation. Carbon monoxide (CO) is a colorless gas which interferes with the transfer of oxygen to the brain. Nitrogen dioxide (NO_2) is a reddish-brown gas, which at high levels, can cause breathing difficulties. PM_{10} causes a greater health risk than larger sized particles, since these fine particles can more easily penetrate the defenses of the human respiratory system and cause irritation by themselves or in combination with other gases and pollutants. Awareness of the numerous health impacts of air pollution has led to national and state regulation of air emissions from both stationary and mobile sources.

The City of Rolling Hills Estates is in the South Coast Air Basin of California (SCAQMD). The Basin is a 6,600 square mile area encompassing Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Basin is bounded by the Pacific Ocean on the south and west and by the San Gabriel, San Bernardino, and San Jacinto mountains on the north and east.

Meteorological conditions (such as light winds and shallow vertical mixing) and topographical features (such as the surrounding mountain ranges) hinder the dispersion of airborne pollutants in the region. The South Coast Air Basin has air pollution problems because of extensive urbanization, large volumes of traffic, and the presence of frequent temperature inversions which tend to trap air pollutants close to the ground and hamper dispersion. In January 1990, surface inversions occurred in the morning, 70 percent of the time. Average wind speed in the Basin is less than 5 mph on 80 percent of the days during the summer smog season, resulting in increased concentrations of emissions.

To determine air quality, contaminant levels in air samples are compared to national and state standards for six contaminants and to state standards for two others. Standards are set by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) at levels which are determined to preserve public health and welfare with an adequate margin of safety. There are national and state air quality standards for ozone, carbon monoxide, nitrogen dioxide, PM_{10} (suspended particulate matter, 10 microns or less in diameter), sulfur dioxide, and lead. In addition, the SCAQMD monitors compliance with state standards for sulfate and visibility. These standards are outlined in Table 5-1.

The South Coast Air Basin experiences the worst air quality in the nation, with peak air pollution readings as much as three times the standard for ozone and twice the standard for carbon monoxide. The Basin has not been able to attain national and state standards for ozone, carbon monoxide, nitrogen dioxide, and PM_{10} The Federal standard for nitrogen dioxide levels were exceeded during the past five years only in Los Angeles County and nowhere else in the nation.

TABLE 5-1
AMBIENT AIR QUALITY STANDARDS (AAQS)

Air Pollutant	State Maximum Concentration	National* Primary Standards	National* Secondary Standards
Ozone	0.09 ppm, 1-hr avg. > [a]	0.12 ppm, 1-hr avg.	0.12 ppm, 1-hr. avg.
Carbon Monoxide	9.0 ppm, 8-hr. avg. > [b] 20 ppm, 1-hr. avg. >	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.
Nitrogen Dioxide	0.25 ppm, 1-hr avg. > [c]	0.53 ppm, annual avg.	0.53 ppm, annual avg.
Sulfur Dioxide	0.05 ppm, 24-hr avg. with ozone > = 0.10 ppm, 1-hr. avg. or TSP > = 100 ug/m^3, 24-hr. avg. 0.25 ppm, 1-hr avg. > [d]	0.03 ppm, annual avg. 0.14 ppm, 24-hr. avg.	0.50 ppm, 3-hr. avg.
Suspended Particle Matter (PM_{10})	30 ug/m^3 annual geometric mean > 50 ug/m^3, 24-hr. avg. > [e]	50 ug/m^3 annual arithmetic mean; 150 ug/m^3, 24-hr. avg.	50 ug/m^3 annual arithmetic mean; 150 ug/m^3, 24-hr. avg.

TABLE 5-1
AMBIENT AIR QUALITY STANDARDS (AAQS)

Air Pollutant	State Maximum Concentration	National* Primary Standards	National* Secondary Standards
Sulfates	24 ug/m^3, 24-hr. avg. > =		
Lead	1.5 ug/m^3, 30-hr. avg. > =	1.5 mg/m^3, calendar quarter	1.5 ug/m^3, calendar quarter
Hydrogen Sulfide	0.03 ppm, 1-hr, avg. > =		
Vinyl Chloride	0.010 ppm, 24-hr. avg. > =		
Visibility-Reducing Particles	In sufficient amount to reduce prevailing visibility to less than 10 miles at reactive humidity less than 70%, 1 observation.		

Legend
ppm parts per million by volume.
ug/m^3 micrograms per cubic meter.
avg. average.
> greater than.
> = greater than or equal to.

a Effective March 9, 1987. The standard was previously 0.10 ppm, 1-hr avg. > =.
b Effective December 15, 1982. The standards were previously 10 ppm, 12-hour average and 40 ppm, 1-hour average.
c Effective March 9, 1987, standard charged from > =0.25 ppm to >0.25 ppm.
d Effective October 5, 1984. The standard was previously 0.5 ppm, 1-hour average.
e Effective August 19, 1983. The standards were previously 60 ug/m^3 Total Suspended Particulate (TSP), annual geometric mean, and 100 ug/m^3 TSP, 24-hour average.
f Effective July 1, 1987. The standards were previously:
Primary Annual geometric mean TSP> ug/m^3 and 24-hour average TSP>260 ug/m^3.
Secondary Annual geometric mean TSP> 60 ug/m^3 and 24-hour average TSP> 150 ug/m^3.

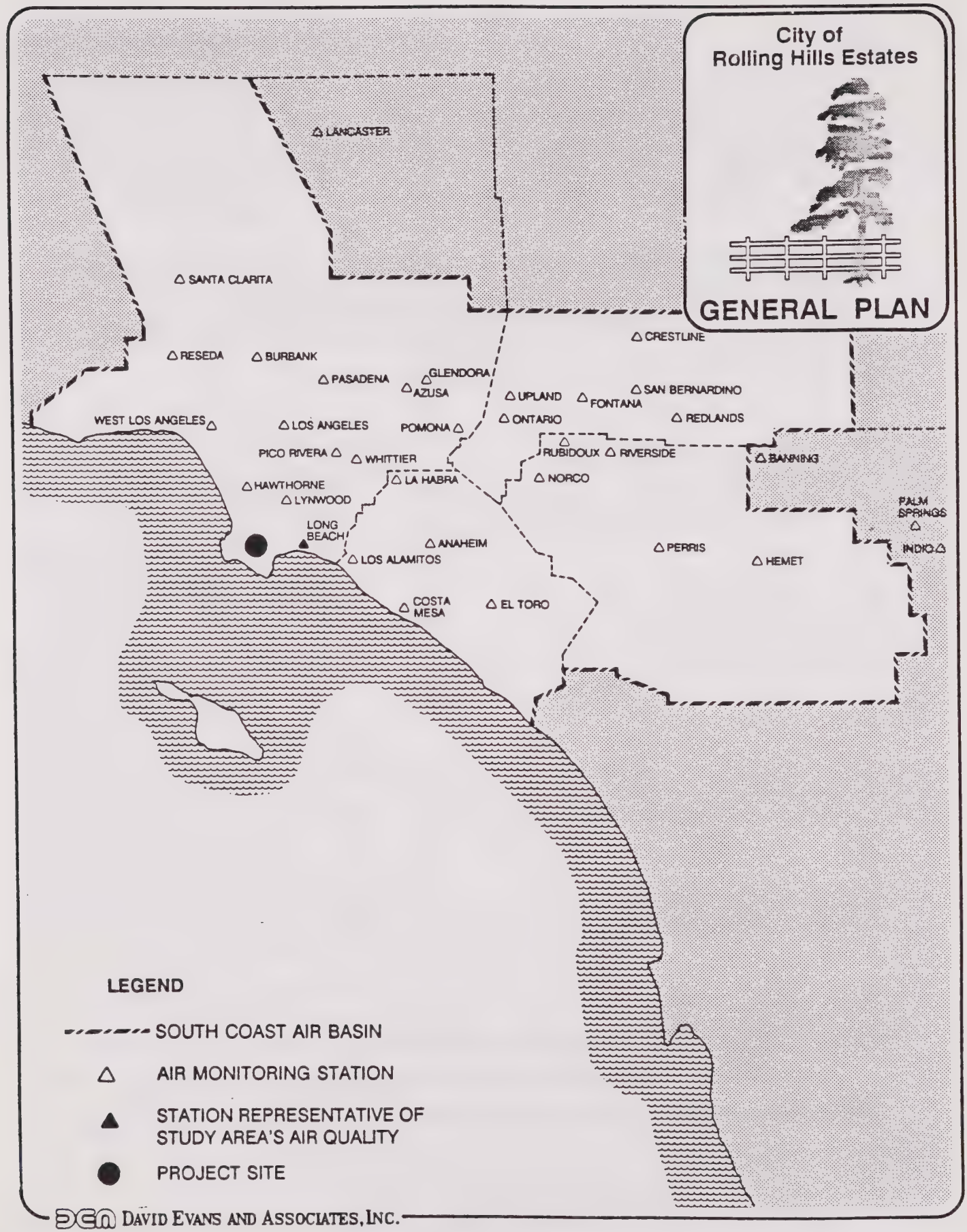
* National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than 3 years after that state's implementation plan is approved by the Environmental Protection Agency.
National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by the EPA.

Source: California Air Resources Board (CARB) 1988.

Local Air Quality

The SCAQMD monitoring station in Long Beach is the station closest to the City and has been used to characterize air quality conditions in the area (Exhibit 5-6). Air quality readings at the Long Beach Station over the past five years, are summarized in Table 5-2.

The maximum ozone concentrations for the five-year period ranged between two to three times the State ambient air quality standard. This standard was exceeded 10 to 29 days per year between 1985-1989. The ozone concentration readings for the area do show a trend toward decreasing State and Federal air quality standards.



SCAQMD AIR MONITORING NETWORK

Exhibit 5-6

Carbon monoxide concentrations have not exceeded either the National or State standards in the past five years. The nitrogen dioxide standard was exceeded one to four days each year with decreasing incidence in recent years. Sulfur dioxide and lead readings did not exceed either State or Federal standards during the five-year period. For ambient levels of suspended particulates (PM_{10}), 32.7 percent to 44.1 percent of the samples in each year exceeded the State standard.

TABLE 5-2
SUMMARY OF ANNUAL AIR QUALITY DATA[a]
LONG BEACH AIR QUALITY MONITORING STATION

	1985	1986	1987	1988	1989
Ozone (O_3)					
State standard (1-hr. avg.>0.09 ppm)					
National standard (1-hr. avg.>0.12 ppm)					
Maximum 1-hr ambient concentration (ppm)	0.23	0.18	0.17	0.16	0.16
# of days state standard exceeded	29	29	11	18	10
# of days federal standard exceeded	11	10	4	7	3
Carbon Monoxide (CO)					
State standard (1-hr. avg.>20 ppm)					
National standard (1-hr. avg.>35 ppm)					
Maximum 1-hr ambient concentration (ppm)	19	13	13	13	13
# of days state standard exceeded	0	0	0	0	0
# of days federal standard	0	0	0	0	0
Nitrogen Dioxide (NO_2)					
State standard (1-hr. avg.>.25 ppm)					
National standard (>.0534 AAM in ppm)					
Maximum 1-hr ambient concentration (ppm)	0.35	0.26	0.28	0.28	0.27
# of days state standard exceeded	4	3	1	1	1
Percent AAM above federal standard	3%	0%	0%	0%	0%
Suspended Particulates (PM_{10})					
State standard (24-hr. avg.>50 ug/m^3)					
National standard (24-hr. avg.>150 ug/m^3)					
Max. 24-hr ambient concentration (ug/m^3)	106	136	113	149	119

AAM = annual arithmetic mean
ppm = parts per million
ug/m^3 = micrograms per cubic meter

[a] The South Coast Air Basin is a non-attainment area for these pollutants.

Source: California Air Resources Board, California Air Quality Data, 1985 through 1988.
SCAQMD, Air Quality Data, 1989.

CULTURAL RESOURCES

Cultural resources in the Palos Verdes Peninsula are rooted in a rich and colorful history that dates back over 100 million years. The historical record of the Peninsula includes the formation of the region's unique physiography, the settlement of Gabrieliño Indian villages, explorations by the Spanish, early ranching exploits, the American conquest, the establishment of the Port of San Pedro and the development of housing tracts. Paleontological, archaeological and historical resources in the area are discussed below.

Paleontological Resources

The oldest rocks found in the Peninsula date back 150 million years to the Jurassic period when reptiles were the most advanced form of life. Evidence of this period is found in the greenish or blue-grey Catalina schist (Franciscan schist) rock exposed in George F. Canyon in the southeastern section of the City. This is the basement rock layer on which sedimentary rocks lie. The Franciscan schist is also found in the bottom of wells drilled on the flatlands north and northeast of the Palos Verdes Hills. Most of the hills in the area are believed to have formed in the last 20 million years.

Sediments from the erosion of the San Gabriel mountains, north of the peninsula, have accumulated in the area as seen in road cuts through the Palos Verdes Hills. Sea shell fossils are found at higher elevations and fish and sea mammal fossils at lower elevations. Fossils of a complete whale, a skull of an elephant-like mammoth, a mastodon tusk and other fossils have been uncovered and preserved in local museums.

Evidence shows that 15 million years ago, the Peninsula was submerged beneath the Pacific Ocean. A rim of mountains progressively uplifted and through the years of geological uplift, erosion and deposition, the Palos Verdes Hills emerged. Then, the peninsula was submerged slowly and emerged a second and a third time. During the process of repeated submersion and uplift, ocean waves cut through the hills to form terraces in the rocks. Incremental uplift of the land and continuous erosion by ocean waves brought about the present physiography of the Peninsula. There are terraced surfaces on all sides of the peninsula but they are most evident on the seaward side of the hill. Thirty-eight cut terraces have been observed and more than a hundred are suspected to exist.

Sediments in the area are mostly Monterey shale (a crumbling brown rock also known as Altamira shale), Valmonte diatomite and Malaga mudstone. The irregular shoreline near Portuguese Bend is believed to have been created from tectonic activity which sends lava to the surface. Tuff, volcanic ash turned to rock, is also found in inland areas.

Sand quarried on the northern slopes of the Palos Verdes Hills, from 1921 to 1988, is similar to that found on the surface of the San Gabriel Mountains. Sand in some areas in the region are designated as wind-blown dune sand. Open pit mining was once extensive

and involved the mining of diatomite on the northern slopes of the Hills. Diatoms are microscopic one-celled plants that were deposited in the sea more than 15 million years ago when the Peninsula was submerged. These organisms accumulated in a bedrock interlayered with shale and mudstone, forming a material known as diatomite. Diatomite is used as a lightweight industrial filter agent. It is also used in insulation and paint filler. Other ground materials found in the area include sandstone shale layered with limestone and black adobe clay. Once the quarries were abandoned, they were used for landfills and some were later developed into parks.

Archaeological Resources

Intensive archaeological investigations have been made to trace the evolution of man in California. Recent emigrants from the Great Basin were of the Shoshonean family, relatives of the Hopi Indians. The Shoshonean people began migrating to California about 500 B.C.. Gradually over a thousand years, these people began to form different tribes with unique political, social and religious practices.

The Palos Verdes Peninsula is known to have been inhabited by the tribes of the Gabrieliño or Canaliño Indians, the last of the three separate indian groups. The Gabrieliños were peaceful indians who lived as seafarers, fishermen and traders. They lived in circular huts constructed of tule or grass. Their political structure may be described as a limited monarchy. Families or clans lived together in a village and the village chief was the leader of the dominant clan. Religious and social practices were strictly observed.

Ten villages are believed to have occupied the Peninsula. Most village sites were near to a supply of water and safe from winter floods. Malaga Cove is the best known site of early habitation. Other villages in the Peninsula include the Suangna, Masaungna, Xuxungna, Kingkingna, Tsauvingna, Harasngna, Ataviangna, and Munikangna.

Records from UCLA's Archaeological Information Center show that eleven prehistoric sites have been identified within the City. Three of the sites are in the southwestern section of the city, in the Rolling Hills Estates Park area. The sites may be described as shell midden (refuse heap) with numerous stone artifacts at a depth of 18 to 36 inches. Artifacts found on these sites include leaf-shaped point, crude leaf-shaped biface, flaked artifacts, mortar fragment, pestle fragment with pitted grooves and asphaltum, biface fragments, metate fragments, chert cores, hammerstones, abalone shell with ground respitory holes, and broken base of lanceolate shaped point.

Seven sites are located in the northeastern section of the City at the quarry site, Montecillo area, Palos Verdes Reservoir, and the Rolling Hills Country Club. The quarry site is believed to have once been the site of an indian village and burial ground covering several acres. A large number of mortars, pestles, points, metates, mano stones, chipping waste, fragments of human bones, olivella beads, sandstone bowls, and cog stones were unearthed

during excavation and mining activities. Some of these artifacts were given to the Smithsonian Institution but many may have been lost during sand washing operations. Montecillo and the Country Club area were also part of the village. Construction over these areas may have disturbed the burial grounds and artifacts on site.

An archaeological sensitivity map was prepared as Exhibit 5-7, using the above information. Hatched areas are archaeologically sensitive areas and unhatched areas are areas of unknown sensitivity. Consultation with the UCLA Archaeological Information Center is recommended before any future development takes place.

Historical Resources

During the 16th century, sailing expeditions became common. Spanish explorer Juan Rodriguez Cabrillo travelled northward from Navidad, Mexico to find the northwest passage between the Pacific and Atlantic Oceans. He stopped at various ports along the California shores and sailed into San Pedro Bay. He died while his ship was sailing along the coast of northern California in January 1543.

Trading expeditions between Manila and Acapulco began in 1559. Knowing that the Spanish galleons were full of Asian treasures, English pirates like Sir John Hawkins and Sir Francis Drake hijacked the galleons on their way to Mexico. Sir Francis Drake also explored the California coasts for a short-cut passage to the Orient. He later took possession of California for England. Spain's interest in California was renewed and its captains were asked to search the coast more closely for the northwest passage and for good harbors. Sebastian Viscaino was appointed to head the primary expedition. Viscaino stopped at San Diego, San Pedro, Avalon Bay and Monterey during his trip. He visited the Palos Verdes Peninsula shortly in 1602 and named the area Canada de los Palos Verdes (Canyon of the Green Trees).

During the 17th century, Russian and English explorers settled along the coast of California. In 1768, a Spanish expedition landed in San Diego and founded a mission. In a continued colonization effort, the Spanish explored the land northward and another mission was founded in Monterey. Other inland missions were subsequently established. Father Junipero Serra established the San Gabriel Mission in 1771. Ten years later, a pueblo was established for the families of soldiers guarding the mission. The pueblo was named the Village of Our Lady the Queen of the Angels of Porcuincula (later Los Angeles). The Spanish control of California was expanded through the influence of the missions.

In 1874, Juan Jose Dominguez decided to retire from military service and petitioned for a grant of the Rancho San Pedro area. For army services rendered to Mexico, Governor Fages of Alta California saw fit to grant Corporal Juan Jose Dominguez, 75,000 acres of range land on which to graze his herd of cattle. Dominguez' land, covering the present day cities of Redondo, Torrance, Compton, Gardena, Lomita, Harbor City, San Pedro,

City of
Rolling Hills Estates

GENERAL PLAN



LEGEND

- UNKNOWN SENSITIVITY
- HIGH SENSITIVITY
- ------ CITY BOUNDARY

DAVID EVANS AND ASSOCIATES, INC.

ARCHAEOLOGICAL SENSITIVITY

Exhibit 5-7

Wilmington, the western portion of Long Beach and the Palos Verdes Peninsula, was called Rancho San Pedro. Dominguez managed his ranch poorly until he died in 1809. Manuel Gutierrez, the executor of his will, assumed the management of the ranch. Gutierrez allowed Juan Dolores Sepulveda to graze livestock on the hilly portion of the ranch. Cristobal Dominguez, nephew of Juan Jose Dominguez, laid claim to the property in 1817. Sepulveda fought the claim and litigation continued for several decades.

In 1822, Mexico declared its independence from Spain. Cristobal Dominguez filed another petition for Rancho San Pedro. Juan Dolores Sepulveda and Cristobal Dominguez died and their sons continued to petition for claims over the land. Manuel Dominguez and Jose and Juan Sepulveda finally agreed to have the claim settled by the Mexican Governor Jose Figueroa. Figueroa awarded the Palos Verdes area to the Sepulvedas and the rest of Rancho San Pedro to Manuel Dominguez with Manuel Gutierrez having only rights to pasture his cattle. This started the prosperous years for the Sepulvedas.

Manuel Dominguez never gave up, and in 1839, he filed another petition. Governor Alvarado upheld the previous decision of Jose Figueroa and this time Manuel Dominguez and the Sepulvedas signed an agreement establishing the boundaries of the Rancho San Pedro and Rancho Palos Verdes.

During the American conquest, the old Sepulveda House on the eastern slope of the Palos Verdes Hills, was used as a garrison by the Sepulveda brothers under General Flores. After short victories, the Mexican army surrendered to the Americans under General Kearny in Cahuenga Pass in 1847.

For the most part, the American administration permitted existing civil offices and their officers to continue to function as they had before the conquest. Governor Pio Pico allowed the Sepulveda family to keep their land in 1846. But the years of prosperity were followed by years of turmoil caused by drought, family squabbles, emigration of gold seekers, and declines in cattle prices. In the early 1860's, a severe drought placed the Sepulveda family in debt. They sold their cattle and lost the ranch to creditors. Over 100 lawsuits for the Rancho Palos Verdes area were filed amidst mortgages, partition suits, squatter evictions, foreclosures, condemnation proceedings and divorces. A permanent title to the Rancho Palos Verdes was finally granted in June 22, 1880. By then, The Farmers and Merchants Bank owned the land and Jose Sepulveda died a broken man.

In 1882, a portion of the Rancho, listed in records books as Lot H, was sold to Jotham Bixby who was leasing the land as a cattle range. After Jotham Bixby's death, his son, George, inherited the land. George Bixby hired Harry Phillips, Sr. to manage the land. Thousands of gum trees were planted and cattle breeding was improved under Phillips. Around the turn of the century, Japanese farmers were allowed to lease the coastal terraces of the Peninsula to plant vegetables.

In 1913, Bixby sold 16,000 acres of the Peninsula to New York investors led by Frank Vanderlip, Sr. With E.G. Lewis, Vanderlip founded the Palos Verdes Estates in 1921. In 1923, lots were put up for public sale. Construction in the area was slow, and several campaigns were made to attract buyers and residents into the area. Large residences were being built in the area which is now the City of Rolling Hills. In 1955, Frank Vanderlip, Jr. sold 7,000 acres of the remaining undeveloped areas of the Peninsula to the Great Carbon Lakes Corporation. While the Great Carbon Lakes originally wanted to mine diatomite in the Palos Verdes Hills, after the sale they designed a planned community for the area. The City of Rolling Hills Estates incorporated soon after the residential areas developed. Growth was modest in the 1950's but exploded in the 1960's through development by large corporations.

Today, residential developments in the City, typified by large houses enclosed within white rail fences, have filled the hillsides. The rural atmosphere of the Peninsula has remained with large lot residential developments and a generally low intensity of development. No structures are recorded on the UCLA Archaeological Information Center's 1896 historic map of the area. The 1944 historic map shows some roads and structures within city limits. Structures in excess of forty-five years of age are recommended for evaluation for inclusion in the National Register of Historic Places.

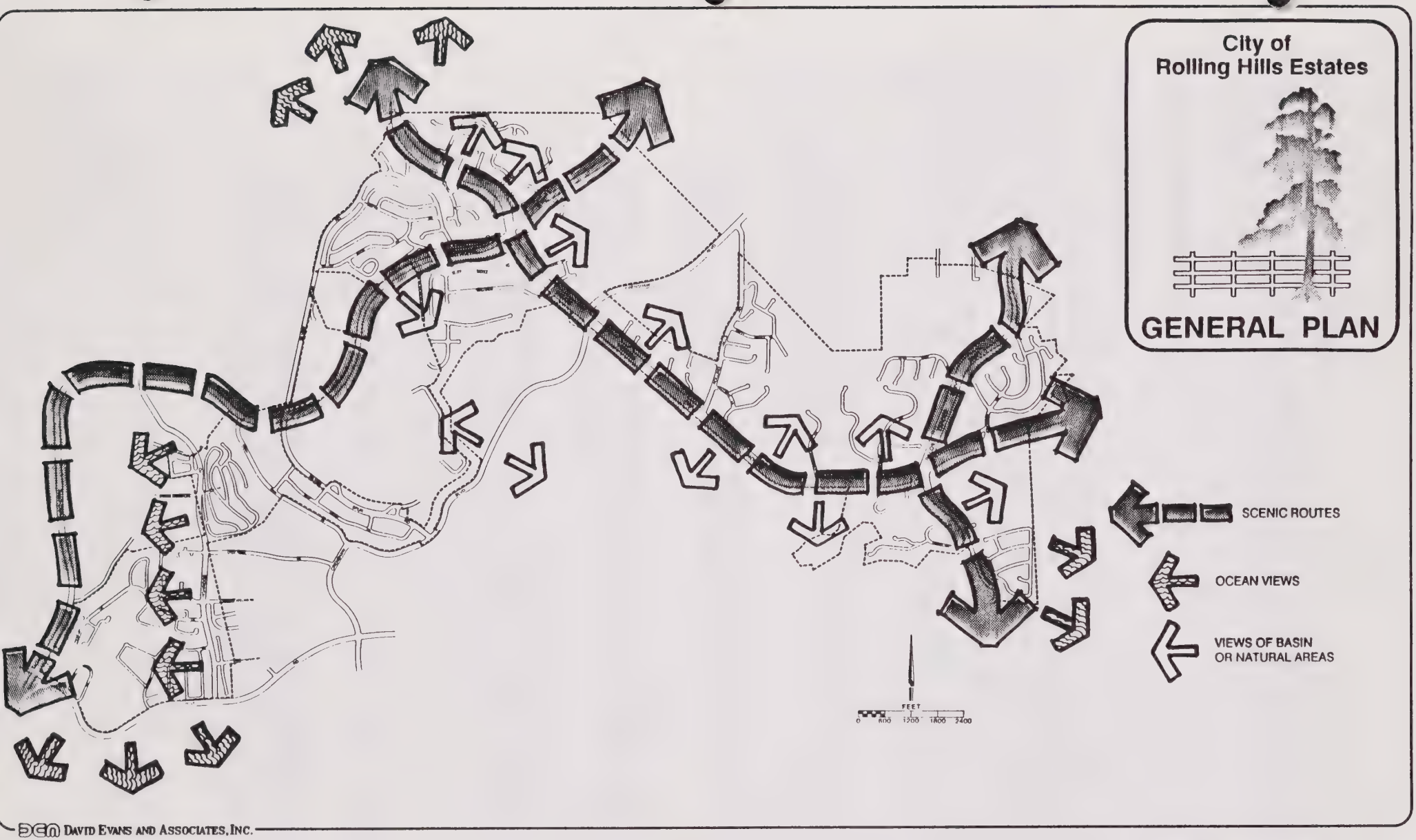
Aesthetic and Viewshed Resources

The location and topography of the City provides views of the ocean from the southern portion of the City and the Los Angeles Basin from the northern portion of the City. In addition, the extensive trail network provides an interconnected series of greenbelts giving residents additional views of the natural landscape.

North-facing views from the City are dominated by the varying Los Angeles basin townscape, while to the south is the California coastline and the ocean. These views can be seen from many vantage points throughout the City. Many wooded hills and canyons which cause views to vary from point to point are themselves beautiful, adding to the panorama (refer to Exhibit 5-8).

The community has long recognized the need to preserve these views and has enacted legislation in the past which regulates land uses, structures, and signing, to prevent the marring of this valuable resource.

Ongoing programs for City beautification have been in force for many years. These programs involve such projects as street and median landscaping, park site acquisition and development, bicycle routes, and horse trail improvements. Exhibit 5-8 indicates the major scenic corridors through the City. Viewshed areas are also conceptually shown.



DEA David Evans and Associates, Inc.

SCENIC CORRIDORS

Exhibit 5-8

Within the City of Rolling Hills Estates, proposals for new residential construction and modifications to existing structures are required to undergo review for neighborhood compatibility.

WASTE MANAGEMENT

Solid Waste Management

The City of Rolling Hills Estates' (City's) Source Reduction and Recycling Element (SRRE) has been developed in response to Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989, and subsequent legislation. AB 939 requires each jurisdiction and county within the State of California to prepare an SRRE that identifies existing solid waste management conditions, and describes how the jurisdiction will meet the target waste diversion goals set forth in the law of 25 percent (%) by the year 1995 and 50% by the year 2000. Each SRRE must contain goals and objectives statements that apply to the entire plan.

The goals and objectives of the City are important because they provide direction and purpose within the planning process. The City's goals are consistent with the direction and intent of AB 939 as summarized below:

- Promote the integrated waste management hierarchy within the City beginning with source reduction, recycling and composting, and then environmentally safe solid waste disposal.
- Maximize the use of all feasible source reduction, recycling, and composting alternatives in order to reduce the amount of waste being disposed through transformation or land disposal.
- Focus on managing special wastes by reducing the quantities generated at their source, by recycling or composting, or by other environmentally safe methods of disposal if these wastes cannot be reduced, recycled, or composted.
- Attain broad public awareness of programs.
- Expand all diversion programs and encourage broader public participation in the medium term.
- Consider multijurisdictional approaches to solid waste management and SRRE implementation including, as a minimum, public information, cooperative marketing, and subregional and regional collection and processing.

A solid waste generation study (SWGS) was conducted to quantify and characterize the solid waste disposed and diverted, hence, generated, by the City.

During 1990, haulers reported that 14,581 tons of solid wastes were collected for disposal in the City. Residents generate about 55% of this tonnage. Commercial and industrial sources contribute 45%.

Private and public sector recovery programs reported that about 6,044 tons of solid waste are diverted annually from disposal. About 54% of this diversion occurs from residential sources.

By adding diversion and disposal quantities, it is calculated that about 20,625 tons of solid waste are generated in the City annually. Residential waste accounts for 55% of this total, while commercial represents 35% of the remaining 45%. The balance is generated by industrial sources (basically construction and debris). When existing diversion is divided by existing generation, then the existing rate of solid waste diversion equals about 29%. This percentage of diversion exceeds the short term goal of 25% diversion by 1995 as mandated by AB 939, but falls short of the medium-term goal.

When examining the wastes that are available for diversion in the future, the SWGS identifies: wastepaper (36%) including newspaper, corrugated containers, high grade ledger, and brown paper bags: yard waste (16%) representing prunings and leaves and grass; and other organic wastes (27%), including food wastes, wood wastes, tires, manure, textiles, and disposable diapers.

Another key aspect of the SWGS in that the City is the most intensively commercialized of all the Peninsula Cities, having 162 retailers within its border. The retailers generate a large share of the wastes disposed, which is somewhat different from adjoining cities of the Peninsula area which are more residential in character.

Source reduction simply means to avoid generating waste. Source reduction represents the highest level of the waste management hierarchy and consists of a variety of activities including, but not limited to, at-source composting, the use of cloth diapers, repair of appliances, two-sided copying, and use of ceramic mugs over disposable cups. Some of these activities are now being used in the private sector and by residents. The SWGS identified the reduction of 230 tons of solid waste per year in the City, or about 1.1% of the waste generated annually.

Since the City fully supports the concept of source reduction, it will encourage the continuance and expansion of such source reduction activities in both the short and medium term planning periods.

A curbside collection program for recyclables is operated in the City, so the City is reasonably familiar with the issues, costs, and opportunities presented by diversion activities. The City does not actually undertake the collection but, rather, contracts out services to the franchise refuse hauler. The City currently conducts limited officer paper recovery, collection of bulky items and repairables, and wood chipping for trail maintenance. In addition, there are several in-place private sector diversion efforts involving wood-green waste recycling. All told, the existing level of diversion amounts to 3029 tons of waste per year, or 14.7% of the solid waste generated annually.

Composting has played a key role in the management of wastes in the City, and it is projected to continue to play a key role for the target green wastes such as yard wastes and other readily decomposable materials. The existing amount of diverted wastes to composting equaled 849 tons per year, or approximately 4% of the total wastestream.

The City does not plan to site immediately any facilities for composting within the City limits. It does intend to provide for the efficient collection of compostable wastes, and to direct its attention and energies on helping to develop the markets for composting products through such activities as proactive procurement of composted products.

It is estimated that composting programs will divert about 590 additional tons of waste per year in the medium term, increasing the contribution of composting in the overall diversion effort to approximately 1440 tons per year.

Hazardous Waste Management

Hazardous chemicals are prevalent in modern society, not only in commercial and industrial operations, but also in houses and apartments. Household hazardous substances are typically small quantities of a wide variety of household products. These small quantities vary from a small container of chemical drain opener to five-gallon containers of paint. Included are the containers that hazardous chemicals were in when purchased and those that stored the wastes at one time or another. Hazardous substances can be found throughout the home, garage, garden, and hobby shop as constituents in products such as cleaners, paints, pesticides, and glue. Once these hazardous products and their containers are no longer needed by the consumer, they become Household Hazardous Waste (HHW). Improper disposal of HHW can pose a risk to human health and the environment.

Until recently, programs to properly manage HHW were virtually non-existent, resulting in wastes being disposed in the garbage, down the sewer, into storm drains, or directly onto the ground. The improper disposal of hazardous substances can result in refuse workers being exposed to hazardous chemicals, equipment damage, contamination of groundwater and surface water, and potential hazardous waste leachate generation from municipal solid waste landfills. Ultimately, improper disposal of HHW can lead to costly environmental and economic consequences.

Rolling Hills Estates Disposal Characterization Study indicated that in 1990, less than 150 tons of HHW were generated by City residents and disposed in all area landfills. This represents nearly one percent of the annual municipal solid waste stream.

To develop the HHWE, the City undertook a series of planning steps that identified potential and actual alternatives to ensure reduction, recycling, composting, and safe disposal of HHW. The seven steps consisted of:

- Establish goals and objectives of the City.
- Review existing conditions.
- Describe alternatives for a potential program.
- Evaluate alternatives.
- Configure alternatives into diversion systems and make recommendations.
- Portray implementation timeline, task requirements, and costs.
- Develop a monitoring and evaluation strategy.

To establish the goals and objectives of the City, meetings were held with key City decision-makers to solicit input on public awareness and concerns.

The City also assembled key documents and information about private and public sector characteristics and activities concerning HHW. This information was relied upon to identify local conditions that were instrumental in actual evaluation.

Based on local conditions, the City was included in a set of all four Peninsula Cities. This set represented a rational grouping based on common sets of characteristics. This grouping was used only as the initial design basis for program development, but as the costs of HHW are high for the volume of material, this grouping may prove invaluable later when the City and adjoining Peninsula Cities strive to implement their programs.

Using local conditions and the goals and objectives, the City evaluated several potential alternatives that could be configured to form a program. Initially, all alternatives were screened in a preliminary manner to eliminate those alternatives that would prove untenable for the City and Peninsula area for economic, environmental, institutional, technical, or marketing reasons.

Following, remaining alternatives were fully evaluated against 10 basic criteria required by the California Integrated Waste Management Board (CIWMB). Several additional criteria

used in the development of the companion Source Reduction and Recycling Element (SRRE) were not used since they were not relevant to HHW.

These criteria are grouped into cost, technical and institutional areas. Each was applied to the remaining alternatives, yielding a high (H), medium (M), or low (L) result. High ratings were positive for alternatives and inferred greater success in implementation, while low ratings were negative and implied greater difficulty in implementation. Based upon this analysis, alternatives were selected and configured into a system for HHW management.

The results of the evaluation indicated that the County program, periodic collection, recycling, public education, and monitoring (at collection of municipal trash) are the most appropriate alternatives for the City.

The selected HHW alternatives for the City are as follows:

- County program (existing but expanded).
- Periodic collection on a quarterly basis (includes Unical's program and above-mentioned County effort).
- Public education.
- Monitoring (hauler conducted activity as waste collected).
- Recycling programs.

The eventual overall HHW management system for the City will be a combination of existing and new efforts. The overall program provides for HHW reduction, collection, and recycling supported by an extensive public information and education effort.

The effectiveness of any HHW program is dependent upon the success of the public education program. The education program should be designed to create widespread public awareness of diversion activities taking place in the community an to motivate residents and non-residents to participate in the HHW programs.

The City plans to coordinate with the other cities located on the Palos Verdes Peninsula in developing its educational and public information program. Together, the cities in the Palos Verdes area can design an extremely effective educational and public information program, while at the same time avoiding a duplication of efforts.

City of
Rolling Hills Estates



GENERAL PLAN

Open Space & Recreation Element

SECTION 6.1 INTRODUCTION

The Open Space and Recreation Element of the *Rolling Hills Estates General Plan* establishes a long-range program for the preservation of open space areas in the City and the provision of recreation areas and facilities to serve the needs of residents. The Element includes an inventory of both public and private open space and plans for the continued protection of these areas.

The Open Space and Recreation Element fulfills the requirements of *Section 65560 to 65570 of the California Government Code* regarding the preparation of an open space plan for the City. Open space and recreation issues are brought together with this element because of the interdependence between the two. Areas preserved as open space are valuable resources for both outdoor recreation and scenic enjoyment.

Open space refers to land or water which is unimproved and devoted for the preservation of natural resources, for outdoor recreation or for public health and safety concerns. Open space includes habitats of wildlife species, streams, agricultural land, groundwater recharge areas, areas with mineral deposits, trails, parks, outdoor recreation areas, utility easements, and scenic highway corridors. Open space lands may also include areas requiring the regulation of hazardous conditions such as earthquake fault zones, unstable soils, flood plains, and watersheds.

The preservation of open space is necessary for the enjoyment of outdoor recreation, the protection of public safety, and the preservation of important natural resources. As a limited and valuable resource in the City, open space areas must be preserved in spite of development pressures for urban land uses. Likewise, parks and other public recreation areas require protection from development pressures.

The Open Space and Recreation Element is closely related to the Conservation Element. Both elements deal with the preservation of natural resources. By designating an area as open space, its natural resources are protected from destruction.

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SECTION 6.2 GOALS AND POLICIES

The Open Space and Recreation Element establishes a long-range program for the preservation of open space areas in the City and provides for recreation areas and facilities to serve the needs of residents. The preservation of open space is tied to outdoor recreation, public safety and the use of natural resources. Open space areas must also be preserved to protect the rural character of the City. The following goals and polices aim for the continued availability of open space areas, parks and recreational facilities for residents of the City.

Issue: Maintain Existing Open Space

Open space areas in the City contribute to rural character of the area and provide recreational opportunities. Continued growth puts pressure on open space areas for their development to more urban uses.

Goal 1: **Maintain existing natural open spaces, parks and recreational facilities**

Policy 1.1 Preserve natural open space areas and design future recreational facilities to protect the local natural environment for present and future generations.

1.1.1 Implementation Measure: The City will implement the General Plan Land Use policy and the Park Facilities Plan contained in this element.

Timing: Immediate and ongoing
Agency: Planning Department and Community Services Department
Funding: General fund

Policy 1.2 Maintain the rural and lower density character of Rolling Hills Estates which is defined by the presence of wide open spaces and low density development.

1.2.1 Implementation Measure: The City will implement the General Plan Land Use policy.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.3 Preserve and enhance the natural environmental and cultural heritage of the Peninsula and of the City of Rolling Hills Estates.

1.3.1 Implementation Measure: The City will adhere to the requirements and provisions of the Open Space Plan.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.4 Cooperate with neighboring cities, the County and the State in the planning for recreational and open space programs to preserve and enhance the Peninsula's natural environment and cultural heritage.

1.4.1 Implementation Measure: The City will contact neighboring jurisdictions to identify programs where joint use and cooperative agreements are possible.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Policy 1.5 All efforts should be made to preserve existing open space areas and other undeveloped land where appropriate.

1.5.1 Implementation Measure: The City will implement the General Plan Land Use policy and the Park Facilities Development Plan.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Issue: Recreational Areas

The recreational needs and interests of a community are largely served by local parks and facilities. Rolling Hills Estates will continue to provide diverse recreational opportunities for local residents.

Goal 2: Provide for the recreational needs of residents of the City.

Policy 2.1 Promote a cooperative, neighborly and cultural community by encouraging recreational programs which stimulate, educate and enrich the lives of residents.

2.1.1 Implementation Measure: The Community Services Department will continue to work with arts organizations to establish and promote arts and cultural activities in the City. The City will implement the Park Facilities Development Plan.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Policy 2.2 Cooperate in sharing a Peninsula-wide system of parks and recreational facilities.

2.2.1 Implementation Measure: The City will contact neighboring jurisdictions to share plans for a Peninsula-wide system of parks and recreation facilities.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Policy 2.3 Many of the open space and park areas are currently designated for very low density residential uses. They should be redesignated to reflect their actual use and to ensure future open space, recreational, or park use.

2.3.1 Implementation Measure: The City will implement its General Plan Land Use policy and zoning ordinance which indicates areas that will be preserved from future development.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.5 Encourage the use of vacant school sites for recreational use.

2.5.1 Implementation Measure: Staff review of future development proposals for school sites will examine potential reuse of school sites for recreation use. The City will implement the Open Space Plan and the Park Facilities Development Plan included in this Element.

Timing: Immediate and ongoing
Agency: Planning Department and Community Services Department
Funding: General fund

Policy 2.6 Encourage local citizens groups to participate in the planning, development and maintenance of recreational facilities.

2.6.1 Implementation Measure: The City will establish an "Adopt-a-Park" program as a means for residents to provide equipment for existing and future facilities.

Timing: 1993
Agency: Community Service Department
Funding: General fund

Policy 2.7 Preserve and promote the equestrian and hiking trail network within the City of Rolling Hills Estates.

2.7.1 Implementation Measure: The City will implement the Trails Plan included in the Open Space and Recreation Element.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Policy 2.8 Provide a permanent site for an Equestrian Center, similar to what now exists and prepare a general design and operational plan for the facility.

2.8.1 Implementation Measure: The City will identify the future City Equestrian Center in the Capital Improvement Program. The General Plan Land Use Policy and the Parks Facilities Development Plan indicates a future equestrian center could be included in the future development of Palos Verdes Landfill.

Timing: 1994 for CIP programming
Agency: Community Services Department
Funding: General fund

Policy 2.9 Review and amend as appropriate ordinances relating to equestrian facilities within residential areas. The ordinances must take into consideration storage

facilities for feed, bedding, equipment, manure removal, emergency water storage, safe interior height and minimum stall and corral size per horse.

2.9.1 Implementation Measure: City staff will review the Zoning Ordinance and make appropriate revisions. Revisions regarding required minimum corral size will be made part of the proposed Hillside Development Guidelines.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.10 Identify a location for a Community Center.

2.10.1 Implementation Measure: The City will implement the General Plan Land Use Policy and undertake the necessary zoning ordinance revision to accommodate a Community Center.

Timing: 1993
Agency: Planning Department
Funding: General fund

Issue: Development of Open Space, Parks and Recreational Facilities

Additional development of open space, parks and recreational facilities should accompany growth and development in the City. Preservation efforts will allow the City to maintain its rural character and the quality of the environment.

Goal 3: **Develop additional parks and recreational facilities and preserve open space areas under private ownership.**

Policy 3.1 Encourage property owners to contribute lands to the City for open space and recreational use. One such organization involved in preserving open space in the City is the Pepper Tree Foundation.

3.1.1 Implementation Measure: Any land set aside or dedicated for open space will have deed restrictions to ensure land is reserved for open space.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 3.2 Seek County, State and/or Federal funds or the possibility of sharing funds with other agencies and organizations to acquire additional parkland or develop additional facilities.

3.2.1 Implementation Measure: The City will identify a staff person or consultant to evaluate the feasibility of obtaining grants for new park development where funds are available.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Policy 3.3 Develop plans for financing the acquisition of open space areas should they be placed on the market by current property owners.

3.3.1 Implementation Measure: City staff will identify potential sources of funds for the acquisition of future parkland and facilities.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Policy 3.4 Review and revise ordinances (such as the Quimby Ordinance) to require builders and developers to provide lands and/or funds for acquisition and development of land for recreational use.

3.4.1 Implementation Measure: City staff will review the current park development fee ordinance to determine whether or not the appropriate fees are being charged.

Timing: 1993
Agency: Planning Department and Community Services Department
Funding: General fund

Policy 3.5 Maintain or increase current ratio of parkland to population. The current ratio of parkland to City residents must be maintained or increased and not be less than the current ratio of 6.7 acres of parkland for every 1,000 residents.

3.5.1 Implementation Measure: City staff will ensure that the current parkland service ratio is maintained through the environmental review process.

Timing: Immediate and ongoing
Agency: Community Services Department
Funding: General fund

Policy 3.6 As stated in the Transportation Element (Policy 3.1), encourage the development of connections between existing trails where feasible.

3.6.1 Implementation Measure: The Community Services and Planning Departments will review future development proposals to identify potential connections to the trail system. Future trails must be consistent with the Multi-use Trail Plan.

Timing: Immediate and ongoing
Agency: Planning Department and Community Services Department
Funding: General fund

Policy 3.7 Proposed subdivision developments, new construction, and additions should be reviewed for compliance with the City's trail plan, and the improvement programs outlined in the Open Space and Recreation Element.

3.7.1 Implementation Measure: Expand the discretionary review process currently followed for the Neighborhood Compatibility Ordinance to include recreational open space, and trail needs.

Timing: Immediate and ongoing
Agency: Planning Department and Community Services Department
Funding: General fund

Policy 3.8 The City will work with property owners, community organizations and other agencies so that existing multi-use trails are maintained where appropriate.

3.8.1 Implementation Measure: The City Planning and Community Services Departments will identify all easements that have been recorded and examine the status of the easements.

Timing: Begin in 1994
Agency: Community Services Department and Planning Department
Funding: General fund

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SECTION 6.3 OPEN SPACE AND RECREATION PLANS

INTRODUCTION

While the majority of the City is developed, there are large areas of the City which are presently undeveloped. These areas include Open Space set aside for parks, commercial recreation, and trails.

This section of the Open Space and Recreation Element establishes a hierarchy of park facilities, and corresponding standards that can be utilized for the development of new parks and recreation facilities and the improvement of existing ones. Finally, a detailed inventory of existing open space and recreational facilities is provided in the Background Report (Section 6.4).

This element indicates open space and park development standards for the City. The standards for recreational facilities apply to those that presently serve the City as well as those which will be developed over the life of the Plan.

In considering the application of the Open Space and Park Facilities Development Plan, the following issues need to be considered.

- *Open Space Resources.* The City's lower density character, the character and nature of past development, the area's varied topography, and the community's concern with the preservation of environment has resulted in the preservation of a substantial amount of open space. A major focus of the General Plan and the Open Space and Recreation Element is the continued preservation of the remaining open space in the City.

- *Park Facilities.* The City needs to continue to provide facilities for both passive and active recreation in the City. As a result, parks and facilities must continue to provide athletic facilities, picnic areas, and play areas for small children.

- *Equestrian Facilities.* The majority of the City is located within an equestrian overlay zone and interest in preserving the equestrian character of portions of the community remains strong. As a result, many of the recreational facilities in the community are directed towards equestrian users.

- *Multi-use Trail Facilities.* The entire City is linked by a system of trails that are used by equestrians, hikers, and bicyclists. These facilities will be maintained and new trails developed over the life of this General Plan.

- ***Environmental Resources.*** The City is rich in natural and cultural resources which warrant preservation. A major objective of the Open Space and Recreational Facilities Plan will be to preserve these resources for the future enjoyment and education of the region's residents.

OPEN SPACE PLAN

The Land Use Element and map provides for a number of land use designations that will be effective in preserving and maintaining open space. These land use designations include the following:

Open Space: This land use designation applies to public lands reserved for open space, parks, equestrian facilities, and other public facilities containing large undeveloped areas. This category also includes privately owned land that has been reserved for open space through development agreements and/or dedications.

Commercial Recreation: This category of land use applies to golf courses (existing and future) and private clubs. Activities included in this category typically have large amounts of open space.

The Land Use Element and the Open Space and Recreation Element also include a number of Overlay Zones. These Overlay Zones include the following:

Horse or "H" Overlay: This overlay designation applies to those areas of the City where horses are permitted. Areas of the City within the "H" Overlay designations are connected with equestrian trails. The Horse Overlay Zone is indicated in Exhibit 6-1.

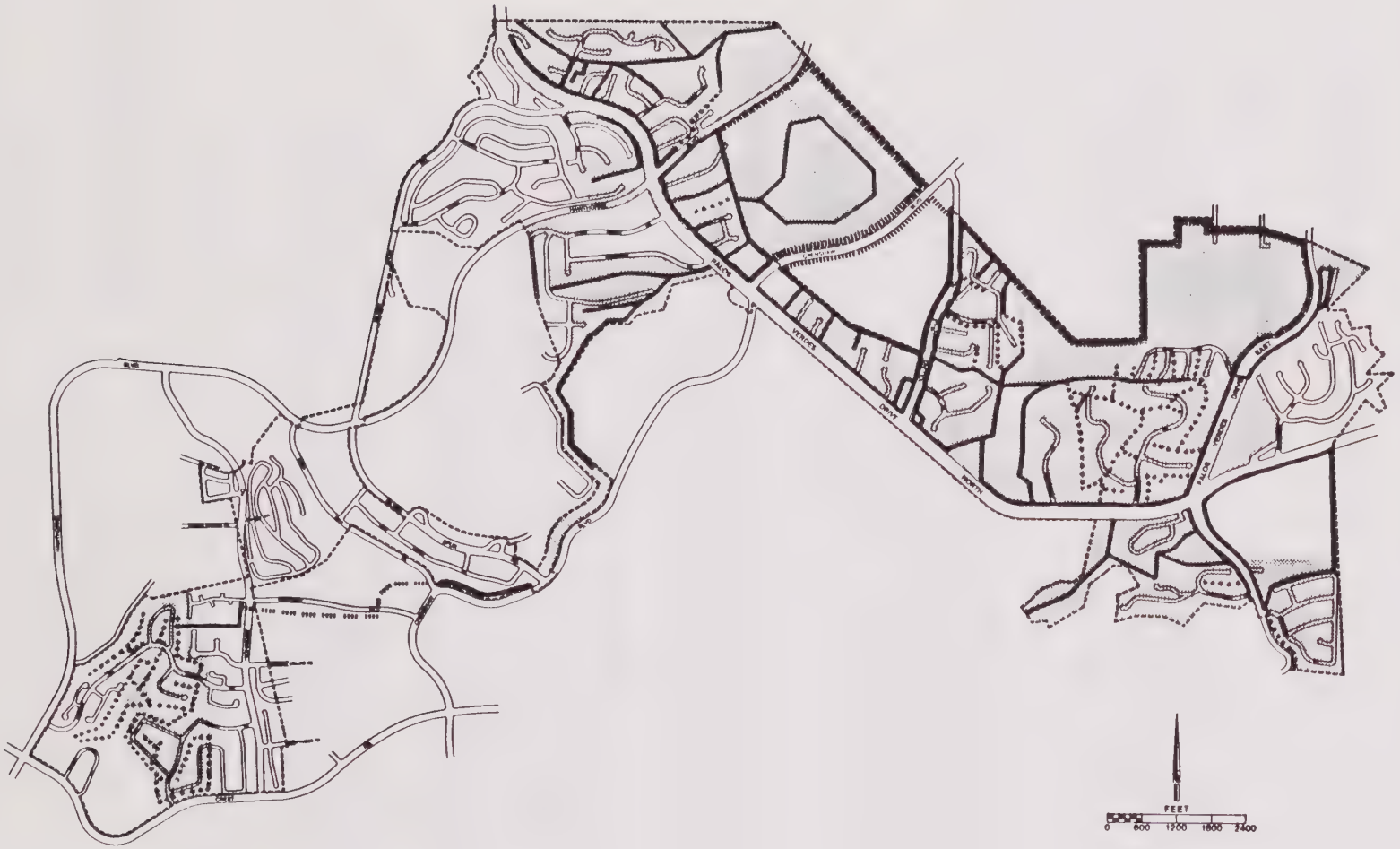
Parks Development Overlay: The General Plan policy provides for new park facilities in certain areas of the City. The purpose of the designation is to indicate, in a generalized way, the location of future facilities that are envisioned under the Open Space and Recreational Facilities Plan.

Multi-use Trails: The Open Space and Recreation Element includes a plan for trails development. This Trails Plan identifies both existing and future trails in the City. The Multi-use Trails Plan is shown in Exhibit 6-1.

The Open Space and Recreation Element establishes a classification system that applies to all existing and future park and recreation facilities in the City. Specific standards have been developed for each category of park and facility that address their spatial requirements, function, and improvements.

City of
Rolling Hills Estates

GENERAL PLAN



EXISTING TRAILS
- CITY MAINTAINED
- PRIVATE MAINTAINED
- PROPOSED TRAILS
- CITY BOUNDARY
- HORSE OVERLAY ZONE

EQUESTRIAN TRAILS

Exhibit 6-1

A specific policy included in this element calls for the City to maintain or increase the current ratio of 6.7 acres of open space for every 1,000 persons living in the City. This objective reflects the community's desire to maintain or increase the ratio of parkland to residents which existed at the time of the preparation of the General Plan.

The community understands that while the population may fluctuate, the City does not want to lose the open space resources which were in the public domain at the time the policy was written.

PARK FACILITIES DEVELOPMENT PLAN

Parks Classification and Standards

Parks that provide picnic areas, athletic fields, game courts, or even areas for passive activities will continue to play an important role in meeting the recreational needs of the community. Parks in the City of Rolling Hills Estates have been placed into four categories. Specific criteria and standards for each park classification are listed below and summarized in Table 6-1.

- *Mini-Parks.* Mini-parks are specialized facilities designed to serve a concentrated population and/or a specific target group such as preschool-aged children or the elderly. Facilities of this type should be located near higher density residential development such as apartments, condominium developments, and senior housing, in urbanized areas where acquisition of larger park units is unlikely.

- *Neighborhood Parks.* Parks in this category provide for both active and passive recreational activities and include a variety of facilities. In the City of Rolling Hills Estates, a number of neighborhood parks have equestrian facilities.

- *Community Parks.* Community park facilities generally provide a diverse range of facilities and equipment. Park facilities in this category may include a variety of athletic fields, tennis and other game courts as well as equestrian facilities. This category of parks generally offers a wide range of recreational amenities to the surrounding community which may include athletic complexes, riding arenas, swimming pools, picnic areas, and playgrounds.

- *Special Use Parks.* Special Use Parks are those which are developed for a specific type of use. The equestrian facilities, South Coast Botanical garden, the arts center, and golf courses fall into this category.

TABLE 6-1
PARK LAND STANDARDS

Type	Size	Area per 1000 Persons	Service Area	Location	Usual Facilities and Remarks
Neighborhood Park	3 to 5 acres	0.25 to 0.5 acres per 1,000 persons depending on other available services (17-33 acres total)	Approximately 1/4 mile radius	In highly developed neighborhoods where neighborhood park land is unavailable and there are no other services.	Children's play area, landscaping, picnicking, open play area for pick up sports and riding rings.
		1.0 to 2.0 acres per 1,000 per persons (66-132 acres total)	Approximately 1/2 mile radius	Preferably adjoining an elementary school near the center of a neighborhood unit.	Play areas, multi-purpose courts, tennis courts, picnic areas, open turn area, on-site parking optional.
Community Park	10 to 20 acres	5.0 to 8.0 acres per 1,000 persons (320 to 520 acres total)	Approximately 1 to 2 mile radius	At or near the intersection of major or secondary thoroughfares near center of service area.	Baseball, football, softball, soccer, tennis and other active athletic areas, community center, children's play area, on-site parking, restrooms, picnic areas and riding rings.
Special Use Park	No size constraints	5.0 to 8.0 acres per 1,000 persons when it provides one or any combination of community park services. Otherwise, no specific standard.	Citywide	Wherever appropriate.	Botanical gardens, lagoons, sports complexes, open space, marine refuges, etc.

Park Dedication Standards

The State of California Planning and Zoning Laws and the Subdivision Map Act Code Section 66477 (The Quimby Act), indicates that the City Council may, by ordinance, require

the dedication of land, the payment of fees, or a combination of both, for park and recreational purposes as a condition to the approval of a final map or parcel map. In cases where such dedication/fees have not been obtained for particular lots through a map, they may be imposed at the time that building permits are issued. Among other requirements, the following conditions must be met:

- The ordinance must include definite standards for determining the proportion of a subdivision to be dedicated and the amount of any fee to be paid in lieu thereof; and

- The legislative body has adopted a General Plan containing a Recreation Element, and any proposed park and recreational facilities are in accordance with definite principles and standards contained therein.

In conformance with this statute, the City of Rolling Hills Estates Open Space and Recreation Element includes standards determining land requirements for future park sites. This element indicates standards that will be considered in selecting sites for parks and these standards should serve as guidelines governing the acceptance of land dedicated to the City for parks development. Future acquisition will focus on acquiring land for neighborhood parks as well as obtaining easements and property for trails. In addition, these same standards will apply to the development of a future equestrian facility proposed within the Palos Verdes Landfill. The following guidelines should be adhered to when acquiring land for future park development:

- The site should have water, storm drains, sewer and electricity available.

- The site should provide an adequate amount of land area required for the particular park being developed.

- The site of a future park, when not attached to a school, should have street frontage. On-site parking should be required.

Parks Development Program

This section of the Parks Development Program responds to the community's desire to both maintain the existing facilities and to provide for additional facilities where this is feasible. The recommendations contained herein are based on recommendations drawn from the goals and policies developed by the General Plan Advisory Committee and by City staff.

The General Plan and the Open Space and Recreation Element promote the development of a number of new parks and the upgrading of facilities in the City.

- *George F. Canyon Neighborhood Park/Ecology Center.* A number of policies call for the creation of a new parkland area and the development of a nature/ecological center on a parcel southwest of the intersection of Palos Verdes Drive North and Palos Verdes Drive East. A nature center will describe the local ecology and cultural resources found in the area. This area is to be maintained as "natural parkland" with native landscaping.

- *Dapplegray School Site - Neighborhood Park.* The entire site has been designated as *Institutional* in the land use plan.

- *Ernie Howlet Park.* Encourage use of the park by renovating the athletic fields including baseball and soccer fields, continue with improvements to the picnic shelters, volleyball courts, basketball courts, handicapped access and an expansion of the existing grandstands for the tennis courts.

- *Pepperwood Park.* The City is considering the development of Pepperwood Park as a mini-park and/or greenbelt.

EQUESTRIAN FACILITIES DEVELOPMENT PLAN

A significant number of recreational facilities in the City are devoted to equestrian uses. The General Plan and the Open Space and Recreation Element promotes the development of a new equestrian center and the upgrading of other equestrian facilities in the City. The major features of the Equestrian Facilities Development Plan involves the development of a new equestrian center as part of the redevelopment of the Palos Verdes Landfill for *Commercial Recreation*. The equestrian center proposed within the landfill site would be linked to the City-wide system of trails.

MULTI-USE TRAIL PLAN

A number of policies included in both this element and the Resource Management Element are concerned with the maintenance and continued development of a City-wide system of hiking, biking, and equestrian trails in the City. Precise development standards for the various types of trails are difficult to establish since trail width and gradient will depend on topography, surface features, and availability of an easement. For planning purposes, three categories of trails are considered in the City of Rolling Hills Estates General Plan:

- *Bridle and Hiking Trails* - Should be well defined and maintained to a maximum of 20' and a minimum width of 8'. The graded width of the path should be 10' where possible. A grade of 0 to 15% is desirable though a maximum grade of 30% is permitted for distances up to 200 feet. The hiking

trails should not be paved but left in their natural condition with a minimum of change to the existing topography.

- ***Multi-Use Trail*** -This category of trail may be used by equestrians, bicyclists and hikers. The bikeway and hiking trail will be developed in a similar fashion to that found in the hiking/bike trail. The equestrian trail is separated from the hiking and bicycle trail by a planting and/or fence, space permitting. A sample cross-section of this type of facility is included in Exhibit 6-2.

- ***Way-Side Parks*** - Park-like areas or open spaces adjacent to riding or hiking trails should be provided at intervals of the heavily used trails. These wayside parks will be developed to enhance the multiple-use character of the trails.

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City of
Rolling Hills Estates

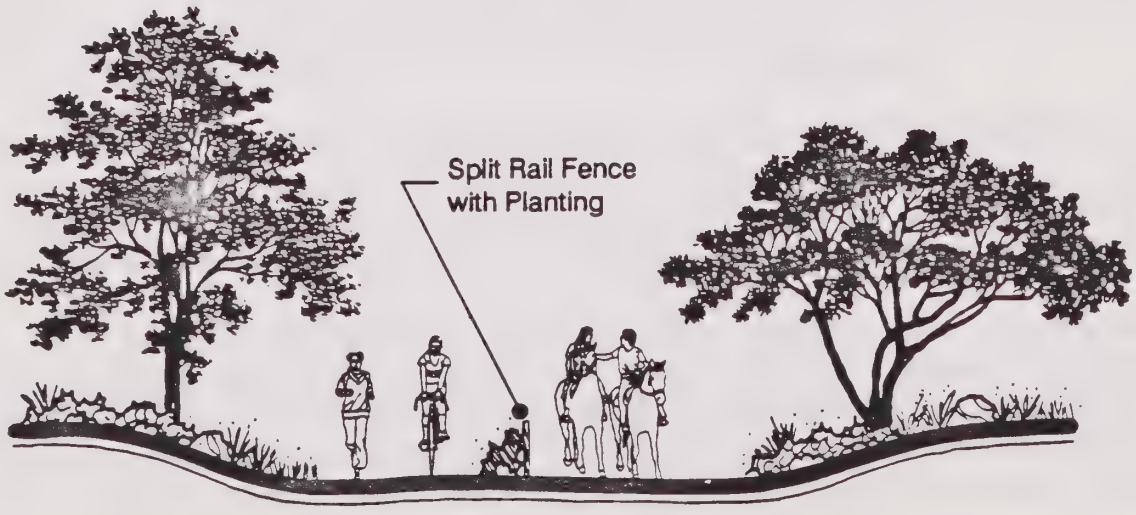
GENERAL PLAN



Equestrian/Hiking Trail



Bike Trail



Multi-Use Trail

DAVID EVANS AND ASSOCIATES, INC.

CONCEPTUAL TRAIL CROSS-SECTIONS

Exhibit 6-2

SECTION 6.4 BACKGROUND REPORT

INTRODUCTION

The Open Space and Recreation Element Background Report provides an inventory of open space, vacant land, and parks and recreational facilities in the planning area. Also, a recreational needs assessment helps to identify the adequacy and the accessibility of existing parks.

Vacant land in the City includes undeveloped private land or public areas retained for open space. Open space areas include those areas unsuitable for development due to steep slopes or unstable ground conditions. Other open space areas remain undeveloped in order to comply with existing land use controls. These include parks, building setback areas, utility easements, school fields and equestrian trails.

Vacant Lands and Open Space

The Palos Verdes Peninsula rises from the floor of the Los Angeles Basin to a 1,200-foot elevation in the Palos Verdes Hills. The Peninsula spans an area of nine miles, from north to south, by four miles, from east to west, encompassing over 22,000 acres. The City of Rolling Hills Estates covers 4.18 square miles in the central and northeastern portions of the Peninsula. The Palos Verdes Hills, crossing through the southeastern portion of the City, provide elevations ranging from 300 feet, in the canyons and gullies located throughout the area, to 1,200 feet, the highest point on the Peninsula.

The City is relatively built out with fairly low density development in most areas. The land use analysis shows that while there are large undeveloped areas in the City, many of these areas are not suitable for development. They generally feature steep slopes or serve as water drainage courses. Although much of this land best serves as open space, only the George F. Canyon is designated as open space at the present time. Other areas, under private ownership, remain undeveloped at the property owner's discretion.

Field surveys were conducted in the summer and fall of 1990, as part of the General Plan program, to identify the location and distribution of development in the City. The information was mapped, using the ARC-INFO and AUTOCAD computer software to provide an accurate depiction of existing development and the distribution of land uses.

The City's open space includes *quarry land* (the Chandler quarry); *vacant land* (parcels where future development may occur); *parks; trails; private open space* (consisting of golf courses and other private recreational facilities) and other *open space* such as unimproved gullies, greenbelt, steep hillsides and canyons. Exhibit 6-3 shows the location and types of open space in the City. Open space areas, scattered throughout the City, are mostly

undeveloped due to steep slopes. Table 6-2 summarizes the open space areas within the City.

TABLE 6-2
OPEN SPACE/VACANT LAND

Land Use	Acreage
Quarry	127.0
Vacant	49.4
Open Space	32.6
Park	52.5
Trails	200.0

Source: City of Rolling Hills Draft Housing Element, 1990.
David Evans and Associates, 1991.

Existing Parks and Recreation Facilities

The Rolling Hills Estates Community Services Department maintains and operates 7 public parks, parkways, equestrian trails, the Municipal Stables, a tennis club, and all recreation services in the City. The seven City parks, excluding the George F. Canyon and the Municipal Stables, have a total area of 52.5 acres. Table 6-3 identifies and describes the public recreational facilities that serve the City and Exhibit 6-3 shows their location. In addition to the parks and recreational facilities, the City offers a full range of recreational activities for its residents. These activities include:

- Annual City Celebration - commemoration of the anniversary date of the City on the third Saturday of September.
- Tracy Austin Tennis Tournament - tennis tournament for two consecutive weekends in July at Rolling Hills Estates Tennis Club.
- Cross Country Run - 5K and 10K runs along horse trails and bike paths in the City.
- Seasonal Recreation Programs - classes in aerobics, equestrian, tennis, volleyball, and sports camps (baseball, soccer, basketball, T-ball, and swimming).
- Summer Swim Program - swimming, lessons and recreation swimming at Rolling Hills High School Swimming Pool during summer.

City of Rolling Hills Estates



GENERAL PLAN



LEGEND

- ------ CITY BOUNDARY
- (1) Ernie Howlett Park-City Park
- (2) Highridge City Park
- (3) Chandler Park-City Park
- (4) Dapplegray Park-City Park
- (5) Silver Spur Park-City Park
- (6) Rockbluff Park-City Park
- (7) R. H. E. Equestrian Center
- (8) George F. Canyon Open Space
- (9) South Coast Botanical Gardens
- (10) Jack Kramer Tennis Club *
- (11) Rolling Hills Country Club *
- (12) Empty Saddle Club *
- (13) Seahorse Riding Academy *
- (14) (Fritdjof) Nansen Field *
- (15) Pepperwood Park-City Park
- (16) Dapplegray School

* Private Facility

DAVID EVANS AND ASSOCIATES, INC.

EXISTING PARKS AND RECREATIONAL FACILITIES

Exhibit 6-3

- California Driving Classic event.
- Cultural Activities - music, dance and theater programs (Peninsula Ballet, Peninsula Symphony, Norris Community Theater).

TABLE 6-3
PARKS AND RECREATIONAL FACILITIES

Facility/Address	Size	Facilities
Ernie Howlett Park 25851 Hawthorne Blvd between Palos Verdes Drive North and Rolling Hills Road	35 acres	4 one-wall handball courts, basketball court, sand volleyball court, 3/4 mile running track with 9 exercise stations, bicycle path, and playground equipment, fire pit and picnic area, two Little League fields, and playfield, barn, 2 riding rings, a dressage arena, & show grandstand.
Rolling Hills Estates Tennis Club Ernie Howlett Park	3.5 acres	8 tennis courts, a patio, refreshment center, and grandstand.
Highridge Park Corner of Highridge Road and Crestridge Road	10.5 acres	Game fields, tot lot, multi-use equestrian trail, par-course, picnic area, and public parking.
Chandler Park Northwest of City Hall at corner of Crenshaw Blvd and Palos Verdes Drive North	2 acres	Equestrian riding ring, volleyball court, open grass field for kite-flying, frisbee, baseball, and picnics.
Pepperwood Park Northwest corner of Crenshaw Boulevard and Palos Verdes Drive North; at City Hall	1.5 acres	Open landscaped area.
Dapplegray Park Northwest corner of Palos Verdes Drive North and Palos Verdes Drive East.	0.5 acres	Bridle trails, riding rings, lunging ring, dressage arena, parking.
Silver Spur Park Southwest corner of Silver Spur Road and Palos Verdes Drive North	1.5 acres	Open grass field for picnics.

TABLE 6-3
PARKS AND RECREATIONAL FACILITIES

Facility/Address	Size	Facilities
Rockbluff Park End of Rockbluff Drive cul-de-sac	3 acres	Children's Playground
Municipal Stables 25401 Crenshaw Blvd	7 acres	112 corrals to stable horses, train in riding, care and feeding of horses, sponsors competitions, shows and lessons, 3 riding rings and 2 hotwalkers.
Dapplegray School Site	12.9 acres	Baseball and soccer fields.
George F. Canyon Open Space Eastern section of City near Palos Verdes Drive North and Palos Verdes Drive East	36 acres	Preserved open space.
South Coast Botanic Gardens Between Rolling Hills Road and Crenshaw Blvd	87 acres	Botanic gardens over former landfill, plant and birds, gardening classes, bird walks, library, tours; This facility is owned by Los Angeles County and is located within an unincorporated county area. It is bounded on three sides by the City of Rolling Hills Estates.

Source: Rolling Hills Estates Resident Handbook, 1985; City of Rolling Hills Planning Department, 1990.

A number of private recreational facilities are also available in the area. They are listed in Table 6-4. Private parks and recreational facilities within residential developments in the City include tennis courts, riding rings and playgrounds designed to serve neighborhood residents.

TABLE 6-4
PRIVATE RECREATIONAL FACILITIES

Facility/Address	Description
Jack Kramer Tennis Club 11 Montecillo Drive	13 tennis courts, swimming pool, paddle tennis courts, etc.
Rolling Hills Country Club 2700 Palos Verdes Drive East	18-hole golf course, 4 tennis courts, clubhouse, dining area and bar.
Empty Saddle Club 39 Empty Saddle Road	Horse stables, equestrian and jumping ring, roping and cutting arena, and clubhouse.
Seahorse Riding Academy 26411 Crenshaw Blvd, north of Palos Verdes Drive North	Hunter/jumper training facility, stables, riding rings, lessons.
Dapplegray Lane Property Owners Association Community Center	Riding arena, lunging arena, community center building.

TABLE 6-4
PRIVATE RECREATIONAL FACILITIES

Facility/Address	Description
Rolling Hills Park Estates Stable and Peninsula Riding Club	Horse stables and training facilities.
(Fritdjof) Nansen Field Hidden Valley Road	Park and playfield; This facility is owned by Norwegian Seamen's Home and maintained by the Norwegian government for the use of its Merchant Marines.

Source: Rolling Hills Estates Resident Handbook, 1985;
City of Rolling Hills Planning Department, 1990.

Trails

Recreational facilities in the City of Rolling Hills Estates and throughout the Palos Verdes peninsula are centered around equestrian activities. Fully developed trails in the City cover approximately 16 miles and 200 acres of land. Bridle trails range from eight to twenty feet wide with a minimum 10-foot right-of-way. White three-rail fences line the trails in most areas. (Over 50,000 linear feet of railing is found in the City.) Exhibit 6-1 shows developed equestrian trails, riding rings and related facilities in the City.

The Horse Overlay Zone ("H" Zone) covers the majority of the northern and eastern sections of the City, as shown in Exhibit 6-1. This zone allows horses to be stabled and ridden for personal recreation. Stables and riding rings are also found in a number of private developments. The City sponsors and actively encourages the presentation of rodeos, equestrian parades, horse and carriage shows and other equestrian activities.

There are 10 miles of designated bikeways along major roads in the City. They interconnect with bikeways of adjacent cities to form an integrated system throughout the peninsula. Exhibit 6-4 shows bikeways in the City. The Transportation Element includes a description of bicycle trail development standards.

Golf Courses

The Rolling Hills Country Club, in the City of Rolling Hills Estates, is one of three golf courses on the Peninsula. It features an 18-hole course and is located in the northeast quadrant of the City, just south of the Chandler quarries. The two other golf courses on the Peninsula are the Los Verdes Country Club in Rancho Palos Verdes and the Palos Verdes Country Club in Palos Verdes Estates.

School Facilities

Some schools in the Palos Verdes Unified School District feature tennis courts and playfields which are available for public use after school hours if prior arrangements are made with the schools. Schools in and near the City include Peninsula High School, Rancho Vista Elementary School, Ridgecrest Intermediate School (closed), Silver Spur Elementary School, and Dapplegray Intermediate School (closed).

During the summer, the Rolling Hills Estates Recreation Department opens the swimming pool at Peninsula High School for public use. A variety of swimming lessons are offered to members. The Little League Park at Dapplegray Intermediate High School is also available for public use.

Other Facilities

Points of interest in the Palos Verdes Peninsula include the Wayfarer's Chapel, Palos Verdes Country Club, Los Verdes Country Club, the Malaga Cove Plaza, and the Peninsula Shopping Center, and Shops at Palos Verdes. The many parks on the Peninsula include the Los Verdes County Park, Point Vincente Park and Interpretive Center, Point Fermin Park, Pacific beaches, and Cabrillo Marine Museum.

The South Coast Botanic Gardens, located between Rolling Hills Road and Crenshaw Boulevard, is bounded on three sides by the City of Rolling Hills Estates. The site was formerly a canyon and landfill which was filled with approximately 3.7 million tons of trash between 1957 to 1965. The Garden is owned and operated by Los Angeles County and has an exhibition hall and a gift shop, as well as several acres of plants and trees. Garden sales, concerts, and plant shows are held year-round.

PARKS NEEDS ASSESSMENT

The recreational needs of City residents vary widely and depend on the type of household, number of children, age and the avocational interests of the household. The City is well-known for the equestrian facilities (both public and private) that are available to residents. The extensive network of equestrian trails, the stables and riding rings, and the rural character of the eastern half of the City reflect this interest. Other specialized facilities of obvious interest to local residents include tennis courts, golf courses, and athletic fields for organized sports such as Little League baseball and soccer.

Some areas of the City are developed at higher densities ranging from the typical single-family subdivision to multiple-family housing, consisting of condominiums and apartments. Residents living in multiple-family housing units (which are of a limited number in the City)

City of
Rolling Hills Estates

GENERAL PLAN



LEGEND

- EXISTING ROUTES
- PROPOSED ROUTES
- CITY BOUNDARY

DAVID EVANS AND ASSOCIATES, INC.

BICYCLE ROUTES

Exhibit 6-4

would be more likely to utilize picnic facilities and passive open space areas than residents living in homes situated on larger lots.

The National Parks and Recreation Association (NPRA) has established area standards for parkland. These standards recommend a minimum of 2.5 acres of parkland for every 1,000 residents. The City of Rolling Hills Estates, with a 1990 population of 7,789 persons, would require approximately 19.3 acres of parkland to meet the minimum NRPA standards. As discussed earlier, there are a total of 52.5 acres of parks and recreational facilities in the City, providing a more than adequate share of parkland for its residents.

Another NPRA criteria for park provision is accessibility. Small parks are generally accessible to the area within 1/4 mile from the park and neighborhood parks are accessible to areas within a 1/2 mile radius. Most residential neighborhoods are within easy access to a park. An abundance of parks and facilities are available to residents living north of Palos Verdes Drive North. As a result of the opening of Highridge Park, the lack of public parks in the southwestern section of the City in the higher elevations has been addressed. This service area analysis is constrained by other factors that determine accessibility, including manmade and natural barriers, distance to a major highway or freeway and available site facilities.

The City standard for parkland is currently 4 acres per 1,000 population. With a 1990 population of 7,789 and a total park acreage of 52.5 acres, the City is approximately 22 acres over its own standard. Exhibit 6-5 illustrates the park standard in comparison to existing facilities.

The project team (consisting of both consultants and City staff) surveyed existing recreational facilities and identified issues and/or needs for each facility that should be considered in future planning. These needs are summarized below:

- *Chandler Park.* Future plans for this park are limited to providing more tables and picnic facilities, and possibly a tot lot. Residents living near the park are opposed to the construction of any additional equestrian arenas because of problems with dust.

- *Pepperwood Park.* This park is actually a small landscaped area on the north corner of Crenshaw Boulevard and Palos Verdes Drive North, adjacent to City Hall. Possible improvements appropriate for the area include a small nature trail, a water conservation demonstration garden, a picnic area or a tot lot.

- ***Rockbluff Park.*** This parcel was originally developed as residential until it experienced a landslide in 1960 (the site is on top of fill material). The City made efforts to stabilize the surface though the fill is still shifting.

- ***Dapplegray Park.*** - This park is used primarily for equestrian activity. Existing improvements include a dressage ring, lunging ring (bull pen) and a large oval ring. The major issues related to the continued operation of this facility include availability to the public and the need for continued maintenance of the footings. The City recently passed an ordinance restricting the park's use by commercial trainers during certain times of the day to ensure that the rings are available to the general public.

- ***Silver Spur Park.*** There are presently no plans for further development or improvements to this park.

- ***Ernie Howlett Park.*** This park has extensive facilities ranging from an equestrian center to ball fields. Potential improvements planned for the area include shelters for picnic tables and tot lot equipment.

- ***Highridge Park.*** A new neighborhood park has been developed and opened as part of the adjacent residential projects. This 10.5-acre facility includes athletic fields, a picnic area, tot-lot, par-course, hiking and riding trail, and parking.

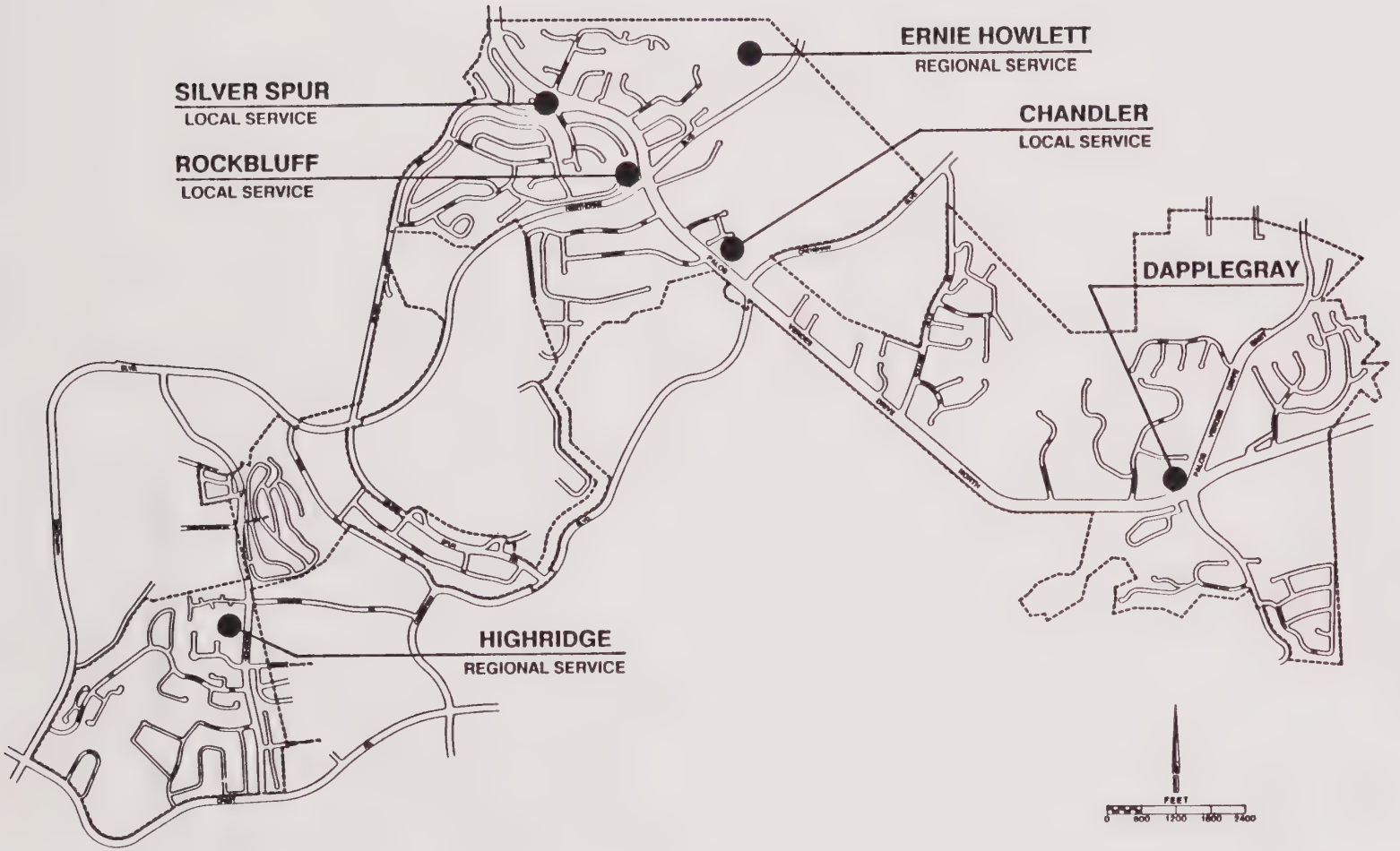
- ***Municipal Stables.*** This facility is located on a former landfill and some areas are experiencing shifting. The site is an interim location for stables and long-term plans called for the site to be developed as a golf course by Los Angeles County, the owners. The Recycling Center has been relocated on the landfill site.

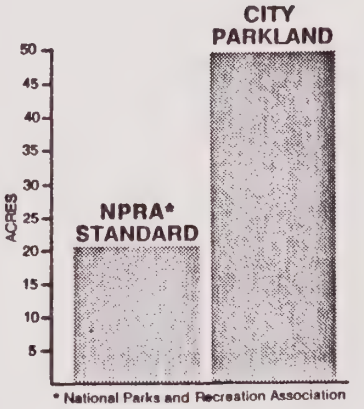
Other areas that have been examined for future park development include two properties in the City. One City-owned parcel is located at the southwest corner of Palos Verdes Drive North and Palos Verdes Drive East, adjacent to George F. Canyon and the adjoining equestrian trail.

The other site is the closed Dapplegray School, owned by the Palos Verdes Union School District. The City has negotiated with the School District in the past for the purchase of the site. A study by the District for the reuse of the site will determine future uses. The local Little League currently utilizes ball fields located on the property.

City of
Rolling Hills Estates

GENERAL PLAN





PARK ACREAGE STANDARDS

City of
Rolling Hills Estates



GENERAL PLAN

Noise Element

SECTION 7.1 INTRODUCTION

The Noise Element of the *Rolling Hills Estates General Plan* establishes guidelines for controlling noise in the City. The Noise Element examines the characteristics and effects of noise, describes state and federal guidelines relating to noise control, evaluates the existing noise environment, and discusses the future noise environment anticipated in the future. The Element also identifies sensitive land uses and noise sources with the intent of separating these uses.

As mandated by the *California Government Code Section 65302(f)*, the Noise Element follows the guidelines established by the *Office of Noise Control of the State Department of Health Services*. The Noise Element indicates noise levels from traffic along major roads and highways. Noise contours are used to illustrate noise levels in areas adjacent to major roadways. The noise contour maps identify existing noise levels in the City and noise levels anticipated from future traffic.

The noise mitigation program in the Element explores these options along with noise insulation standards and land use compatibility along major roadways which are the major sources of noise in the community.

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SECTION 7.2 GOALS AND POLICIES

The Noise Element establishes guidelines for controlling noise in the City. Excessive noise levels disturb and disrupt of human activities and affect the health of individuals. The goals and policies of the Noise Element provide measures to minimize noise problems in the community to protect public health. With the majority of the planning area devoted to residential uses which are especially sensitive to noise it is important that noise be controlled at the source.

Issue: Acceptable Noise Levels

Excessive noise levels disrupt human activities and often results in health problems. To support ongoing activities and protect the residents of Rolling Hills Estates, levels of tolerance for noise should be established.

Goal 1: **Implement acceptable noise levels guidelines included in the Noise Element for each land use category.**

Policy 1.1 Adopt the acceptable noise levels for land uses established by the California Department of Health and as adopted by the City of Rolling Hills Estates in the Noise Element.

1.1.1 Implementation Measure: The City will review applicable ordinances to ensure that they reflect noise guidelines established as part of the Noise Element.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.2 Limit the time and levels of noise from construction and maintenance equipment and activities, especially in residential areas.

1.2.1 Implementation Measure: The City will continue to implement the City's Noise Control Ordinance and other applicable ordinances so that specified hours can be set for construction and maintenance activities.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.3 The City will continue to implement the City's Noise Control Ordinance.

1.3.1 Implementation Measure: The City will continue to implement the Noise Control Ordinance. The time limits designed to reduce construction noise impacts will be reviewed to ensure they are consistent with other regulations and ordinances.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.4 Require all proposed or remodeled pool equipment to be enclosed in structures with sound dampening doors.

1.4.1 Implementation Measure: The zoning ordinance will be revised accordingly.

Timing: 1993
Agency: Planning Department
Funding: General fund

Policy 1.5 The City will respond to noise complaints associated with household equipment in a timely manner.

1.5.1 Implementation Measure: The City will continue to implement the Noise Control Ordinance.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.6 Respond in a timely manner on noise complaints.

1.6.1 Implementation Measure: The Planning Department will monitor both complaints and enforcement of the noise control ordinance. City staff will review current agreements and contracts with the Los Angeles County Sheriffs Department to determine the responsible agency for enforcement of noise control ordinance.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.7 Ensure that schools, medical facilities and other noise sensitive land uses are located in areas where noise levels are within acceptable ranges as defined by the City's Noise Element.

1.7.1 Implementation Measure: Noise sensitive land uses must not be located within areas subject to ambient outdoor noise levels in excess of 65 dBA unless effective mitigation can be identified. The acceptable noise level should not exceed 55 dBA where no mitigation is possible.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.8 Continue to encourage good acoustical design in new construction.

1.8.1 Implementation Measure: City staff will implement the Noise Control Ordinance which establishes criteria and design guidelines for noise reduction.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.9 Residential development adjacent to major arterial roads shall be designed to reduce noise impacts from traffic.

1.9.1 Implementation Measure: Future residential development will be subject to noise standards regulating exterior ambient noise levels as defined by the Noise Compatibility guidelines outlined in the Noise Element. The noise contour map included in the Noise Element will be referred to in identifying future development that would be subject to these regulations.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Issue: Noise Control

When noise sources cannot be prohibited without undue hardship, measures for minimizing potential adverse noise impacts on noise-sensitive land uses should be established.

Goal 2: **Promote the control and reduction of traffic noise and stationary noise created on existing and proposed land uses.**

Policy 2.1 Work with surrounding jurisdictions to limit excessive noise due to aircraft operations, review established flight corridors, and review new development proposals that will involve aircraft operations.

2.1.1 Implementation Measure: The City will designate a staff person to review cumulative projects which could result in significant increases to ambient noise levels due to helicopter operations, traffic, or machinery. The City will oppose any project that will result in a significant adverse impact on the environment unless the impact can be mitigated.

Timing: 1993
Agency: Planning Department
Funding: General fund

Policy 2.2 Control the movement of heavy construction vehicles through the City to minimize noise impacts and enforce the hours of operation.

2.2.1 Implementation Measure: The City will amend the Noise Control Ordinance, if necessary, to minimize noise impacts from heavy construction vehicles. In addition, staff will work with the Los Angeles County Sheriffs Department to enforce regulations related to speed and weight of vehicles on City roadways.

Timing: 1993
Agency: Planning Department
Funding: General fund

Policy 2.3 Preserve the natural ambient noise environment as much as possible.

2.3.1 Implementation Measure: All development proposals will be reviewed by staff as part of the environmental review process to determine the nature and extent of potential stationary and mobile noise impacts. CEQA review of all projects will be

closely monitored to ensure that noise impacts are identified and adequately monitored to minimize potential noise impacts.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

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SECTION 7.3 NOISE REDUCTION PLAN

INTRODUCTION

Residents in the City of Rolling Hills Estates are exposed to a wide range of noise levels that are common in a suburban environment. Major noise sources in the City include automobiles traveling on the major roadways that traverse the City. In addition, stationary noise sources within the City also generate noise affecting noise-sensitive uses located nearby. These stationary noise sources may include a wide range of recreational, commercial, and business activities.

A number of major issues related to noise in the City include the following:

- The major mobile noise sources include vehicles operating on the major arterials that serve the City: Hawthorne Boulevard, Crenshaw Boulevard, Palos Verdes Drive North, Palos Verdes Drive East, Silver Spur Road, and Highridge Road.

- Residential areas located near or adjacent to the major roadways are exposed to traffic noise that often exceeds 60 dBA in many areas.

- The Peninsula Center Commercial District includes a concentration of retail commercial activities which generate substantial vehicular and pedestrian traffic along Silver Spur Road between Hawthorne and Crenshaw Boulevards.

- Through traffic, travelling on major arterials, which often includes large trucks which are responsible for much of the noise in the community.

The traditional definition of noise is that it is unwanted sound. Sound becomes unwanted when it interferes with our normal everyday activities. Sound waves travel through air creating sound energy. This sound energy can be measured using a variety of measurement scales. Various methods are used to evaluate the loudness of a particular noise. The most commonly used units for measuring the level of noise are decibel (dB), Equivalent Noise Level (Leq), and the Community Noise Equivalent Level (CNEL).

A decibel is a unit used for measuring the intensity of sound. A scale of 0 to 140 is used in which zero represents the lowest sound that can be heard by humans and 140 is the rupture point of the eardrum. Exhibit 7-4 in the Noise Element Background Report

provides an acoustical scale illustrating the physical impact of various common noise generators. The Leq measure represents the average of the sound level energy for a 1-hour period and employs an A-weighted decibel correction which corresponds to the optimal frequency response of the human ear. The CNEL is based upon 24 1-hour Leq measurements. The average noise levels for the late evening and early morning hours (the period between 10 p.m. and 7 a.m.) are weighted 10 decibels to compensate for the fact that people are much more disturbed by noise at night than at any other time.

Another method of noise measurement commonly used is the day night average sound level system, symbolized mathematically as Ldn. The Ldn system is very similar to the CNEL method. The day night average sound level measures the 24-hour average sound level, expressed in decibels, obtained after the addition of a 10 decibel penalty for sound levels which occur at night between 10 p.m. and 7 a.m. Intermittent or occasional noise, such as noise associated with stationary noise sources, is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale.

NOISE AND LAND USE COMPATIBILITY STANDARDS

The goal of the Noise Element is to protect the residents from excessive or irritating noise. The impacts from noise can be eliminated or reduced through regulatory noise controls and responsible land use planning.

Several federal and state agencies have developed guidelines relative to land use and noise. These agencies include the Environmental Protection Agency, Federal Highway Administration, Department of Housing and Urban Development, American National Standards Institute, and the State of California.

These agencies standards are based upon cumulative noise criteria, such as the Community Noise Equivalent Level (CNEL) and Day-Night Average (Ldn). These guidelines represent weighted averages of twenty-four 1-hour Leq measurements, with decibel weights assigned to the evening, night, and early morning hours.

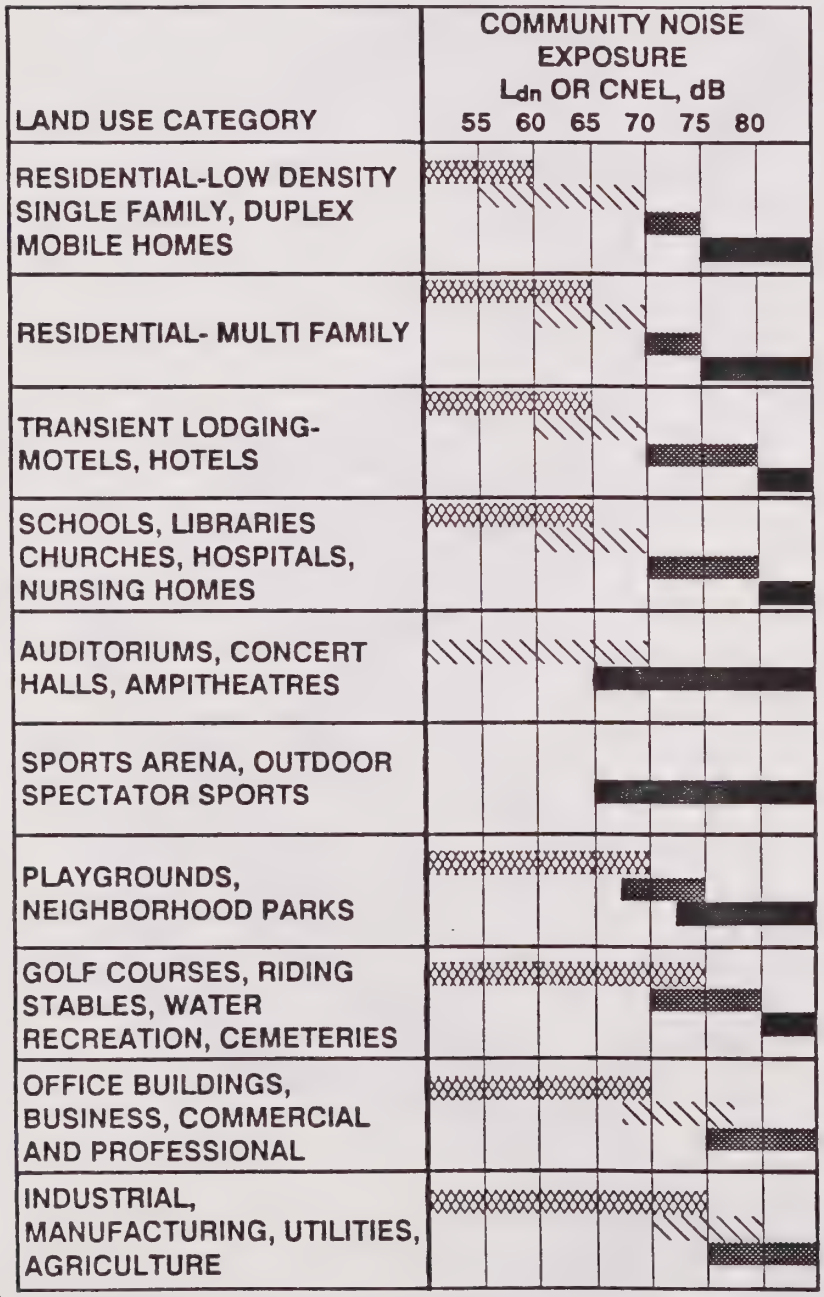
In 1976, the California Department of Health established noise element guidelines that contained a recommended noise/land use compatibility matrix. The matrix, Exhibit 7-1, outlines acceptable levels of noise for different land uses. The matrix is a good guide for noise responsive land use planning. These standards displayed in the matrix for conditionally acceptable uses are relevant to Rolling Hills Estates. It should be noted that transportation noises on public roads are regulated by State and Federal authorities and therefore, local jurisdiction's ability to control these noise sources are severely limited.

City of
Rolling Hills Estates



GENERAL PLAN

NOTE:
This chart indicates the acceptable range of noise levels for the various types of land uses. Planners should strive to locate new development in areas exposed to noise levels in the acceptable noise range.



LEGEND

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

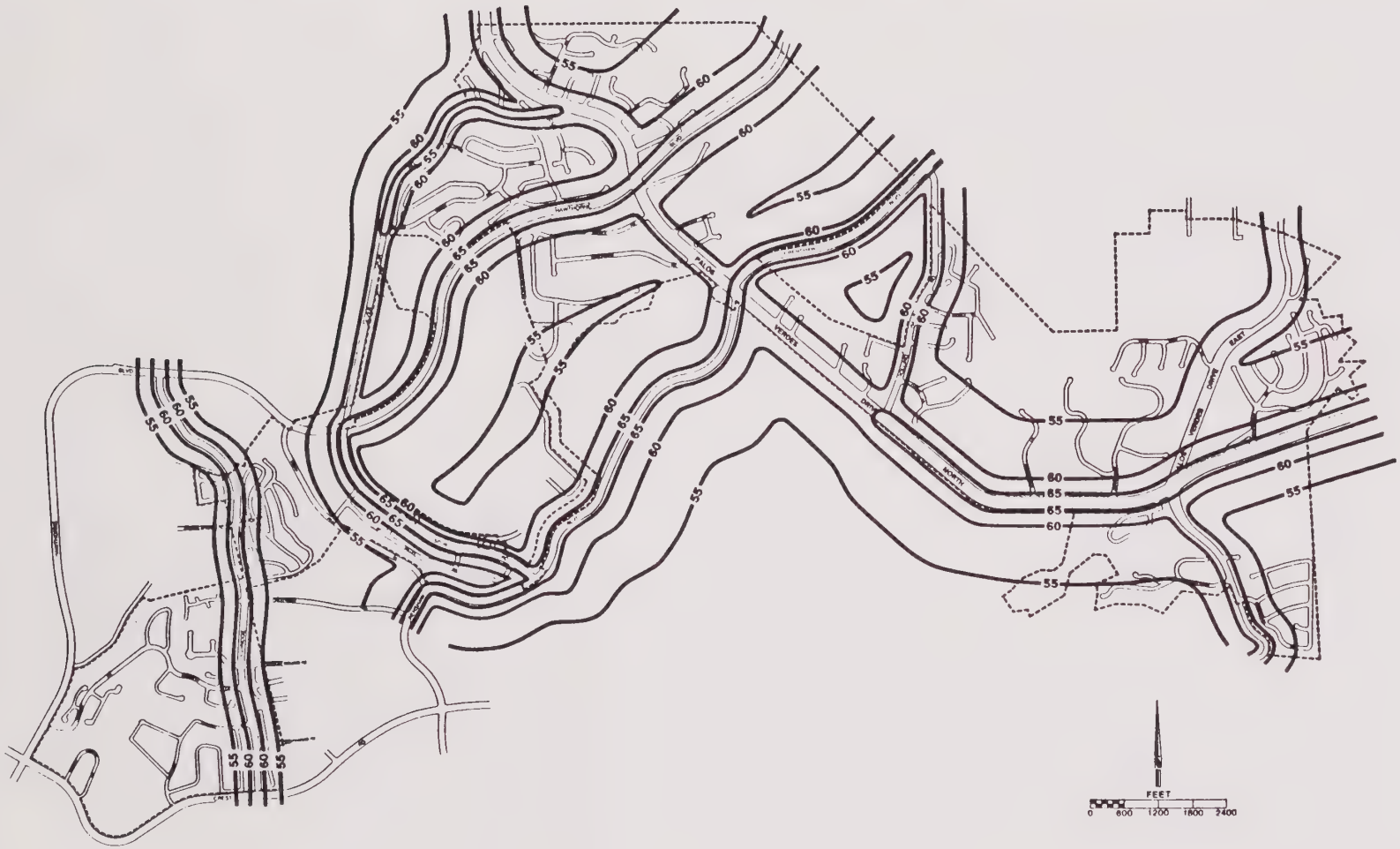
DAVID EVANS AND ASSOCIATES, INC.

NOISE COMPATIBILITY GUIDELINES

Exhibit 7-1

City of
Rolling Hills Estates

GENERAL PLAN



CONTOURS REPRESENT NOISE LEVELS IN DECIBELS

DAVID EVANS AND ASSOCIATES, INC.

FUTURE NOISE CONTOURS

Exhibit 7-2



City of
Rolling Hills Estates



GENERAL PLAN

Traffic Noise

Areas Where Land Use May Change

Significant Noise Generators

DAVID EVANS AND ASSOCIATES, INC.

NOISE IMPACT AREAS

Exhibit 7-3

Acceptable Noise Levels

Acceptable noise levels (refer to Table 7-1) have been established for each of the land use districts provided for in the General Plan. The established levels are based on existing noise levels obtained through field monitoring, projected noise levels and community expectations to maintain an environment that is free from all unnecessary, excessive and annoying noise. Table 7-1 indicates the acceptable noise level when measured at the property line for each category of land use.

TABLE 7-1
ACCEPTABLE NOISE LEVELS

Residential	55 dBA (day)	45 dBA (night)
Non-Residential	65 dBA (day)	55 dBA (night)
Industrial-Research*	55 dBA (day)	45 dBA (night)
Industrial Quarry*	75 dBA (day)	45 dBA (night)
* These land use categories are being eliminated.		

Noise and Land Use Compatibility Standards

Noise/land use guidelines have been produced by a number of State and Federal agencies including the Federal Highway Administration, the Environmental Protection Agency, the Department of Housing and Urban Development, the American National Standards Institute, and the State of California. These guidelines, presented in the following paragraphs, are all based upon cumulative noise criteria such as Leq, Ldn, or CNEL.

- *Environmental Protection Agency (EPA).* In March 1974, the EPA published "Information on Levels of Environmental Noise Required to Protect Public Health and Welfare with an Adequate Margin of Safety" (EPA 550/9-74-004). According to this publication, 55 Ldn is described as the required noise level to provide an adequate margin of safety for areas with outdoor uses including residences and recreational areas. The EPA report does not establish standards, specifications or regulations, but identifies safe levels of environmental noise exposure without consideration for economic cost to achieve these levels.

- ***Federal Highway Administration (FHWA).*** The FHWA has adopted and published noise abatement criteria for highway construction projects. The FHWA noise abatement criteria, basically, establishes an exterior noise goal of 67 Leq for residential land uses and an interior goal of 52 Leq for residences. The noise abatement criteria applies to private yard areas and assumes that typical wood frame homes with open windows can achieve a 10 dB noise reduction when windows are closed.

- ***State of California.*** The state requires every city and county to adopt noise elements as part of their general plans. Noise elements must contain a Noise/Land Use compatibility matrix. A recommended (but not mandatory) matrix is presented in the "Guidelines for the Preparation and Content of Noise Elements and the General Plan", (Office of Noise Control, California Department of Health, February 1976). This matrix is reproduced here in Exhibit 7-1.

A number of federal agencies have adopted standards and recommended noise criteria to protect people in both the working and home environments. In 1969 and 1970, the Department of Labor established occupational noise regulations through the Walsh Healey Public Contracts Act and set standards for noise exposure for all businesses engaged in interstate commerce through the Occupational Safety and Health Act (OSHA).

The Federal Highway Administration (FHWA) has set design standards for various land uses. These standards are used in the planning and design of federally funded highway projects. The Department of Housing and Urban Development has environmental criteria for determining project acceptability of HUD assisted housing and financial assistance programs. It includes noise standards of 65 dB Ldn for residential noise levels. The State of California has adopted noise standards for areas not regulated by the federal government. State standards cover noise from motor vehicles, freeway noise affecting classrooms, noise insulation, occupational noise and airport noise. The California Motor Vehicle Code sets noise limits for vehicles according to type of vehicle and date of manufacture.

California Streets and Highways Code Division 1, Chapter 1, Article 6 requires State funded noise abatement programs for freeway construction or use which will result in noise levels exceeding 55 dBA L_{10} or 52 dBA Leq at existing classrooms, libraries, multi-purpose rooms, and pupil personnel services of public and private elementary and secondary schools. The

noise abatement program may include acoustical treatment, elimination of windows, air conditioning, sound buffer structures and other mitigation measures.

Sound Transmission Control Standards in the California Administrative Code, Title 24, Building Standards, Chapter 2.5 outline noise insulation performance standards for new hotels, motels, apartment houses, and dwellings other than detached single-family units. It requires an interior noise level of 45 dB CNEL or less for residential projects. For projects near noise sources (airport, major roads, and industrial areas), an acoustical analysis must be made to show compliance with the standards.

The California Office of Noise Control has prepared guidelines for the preparation and content of General Plan Noise Elements. The guidelines include a chart to describe the compatibility of noise sensitive land uses in areas subject to noise levels of 55 to 80 dB CNEL or Ldn (refer again to Table 7-1).

Implementation of the Land Use Plan

As discussed, the primary sources of noise in the City comes from traffic on major arterial roadways. These noise sources impact the land uses located along these transportation routes. Residential development will contain noise sensitive uses that include senior housing. This type of use will not be a great contributor to greater noise but will be sensitive due to the type of users, as well as potential locations along the roadways.

The proposed land use policy for the City of Rolling Hills Estates will not result in any significant increases in traffic generated locally. The ultimate reuse of Chandler Quarry and redevelopment of the Northrop site will involve residential development which will generate substantially fewer trips compared to the current uses. Localized increases in traffic could result from the Commercial/Recreation provided for the Palos Verdes Landfill.

Increased traffic anticipated for the major roadways will result from growth outside the City, which in turn, will result in increased noise levels along key roadways. This projected increase in noise is not expected to be discernible by residents in the area however. Table 7-2 indicates the distance from the roadway centerline to the noise level contours depicted in Exhibit 7-2. New development located in areas subject to high noise levels should implement mitigation measures to reduce interior noise to acceptable levels.

TABLE 7-2
FUTURE ROADWAY NOISE LEVELS (CNEL)

Roadway	From/To	Distance (in feet) from Roadway Centerline to CNEL (dB)				
		65 CNEL	60 CNEL	55 CNEL	CNEL @ 50 Feet	Change in CNEL
Highridge Rd	Hawthorne/Crestridge	0	149.3	457.4	62.56	1.16
	Crestridge/Crest	0	141.6	443.9	63.10	1.20
Silver Spur Rd	Crenshaw/Hawthorne	103.6	308.9	970.6	65.93	1.23
	Hawthorne/Willow Wood	63.7	191.1	600.8	64.46	1.16
	Willow Wood/Palos Verdes Drive N	115.6	364.0	1150.5	67.83	1.13
Hawthorne Blvd	Silver Spur/Palos Verdes Drive N	195.0	609.7	1925.8	69.14	1.14
	Palos Verdes Drive N/City Limit	239.1	749.1	2368.5	69.95	1.95
Rolling Hills Rd	Palos Verdes Drive N/City Limit	67.3	210.4	664.4	65.44	1.14
Crenshaw Blvd	Crestridge/Silver Spur	115.9	357.0	1125.8	66.90	1.20
	Silver Spur/Palos Verdes Drive N	215.0	674.0	2129.3	69.61	1.21
	Palos Verdes Drive N/City Limit	118.0	358.8	1129.7	66.67	1.17
Palos Verdes Drive North	City Limit/Silver Spur	96.3	302.8	956.8	67.03	1.13
	Silver Spur/Hawthorne	104.1	327.3	1034.6	67.37	1.17
	Hawthorne/Crenshaw	78.5	246.1	777.6	66.13	1.13
	Crenshaw/Rolling Hills	154.0	485.8	1535.6	69.07	1.17
	Rolling Hills/Palos Verdes Drive E	196.8	614.6	1941.0	69.09	1.19
	Palos Verdes Drive E/City Limit	197.5	614.5	1940.0	68.92	1.12
Palos Verdes Drive East	North City Limit/Palos Verdes Drive N	53.7	165.9	523.3	64.35	1.15
	Palos Verdes Drive N/South City Limit	79.4	225.9	705.7	64.53	1.13

* Changes in CNEL compared noise levels from existing traffic to projected traffic 50 feet from the roadway centerline. Table 7-4 describes existing noise levels.

The implementation of the land use policy is not likely to result in any significant changes in the ambient noise levels of the community. The implementation land use plan will result in changes in land use for a number of properties (refer to Exhibit 7-3) though the changes in land use are likely to be noise sensitive in nature.

Major noise considerations for future planning involve cumulative noise impacts from traffic generated by development located elsewhere in the Peninsula. Major transportation corridors where increases in cumulative or through traffic is possible include Palos Verdes Drive East, Hawthorne Boulevard, and Crenshaw Boulevard (also shown in Exhibit 7-3).

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CHARACTERISTICS OF NOISE

The Noise Element Background Report discusses the characteristics of noise, the existing noise environment in the Rolling Hills Estates, stationary and mobile sources of noise and projected noise levels at buildout of the land use plan. It also provides state and federal guidelines for the control of noise levels and summarizes the City's existing noise ordinance.

The traditional definition of noise is that it is unwanted sound. Sound becomes unwanted when it interferes with our normal everyday activities. Sound waves travel through air creating sound energy. This sound energy can be measured using a variety of measurement scales. Before the existing noise environment can be described, a number of terms need to be explained. In addition, various methods are used to evaluate the loudness of a particular noise. The most commonly used units for measuring the level of noise are decibel (dB), Equivalent Noise Level (Leq), and the Community Noise Equivalent Level (CNEL).

A decibel is a unit used for measuring the intensity of sound. A scale of 0 to 140 is used in which zero represents the lowest sound that can be heard by humans and 140 is the rupture point of the eardrum. Exhibit 7-4 provides an acoustical scale illustrating the physical impact of various common noise generators. The Leq measure represents the average of the sound level energy for a 1-hour period and employs an A-weighted decibel correction which corresponds to the optimal frequency response of the human ear. The CNEL is based upon 24 1-hour Leq measurements. The average noise levels for the late evening and early morning hours (the period between 10 p.m. and 7 a.m.) are weighted 10 decibels to compensate for the fact that people are much more disturbed by noise at night than at any other time.

Another method of noise measurement commonly used is the day night average sound level system, abbreviated as DNL and symbolized mathematically as Ldn. The DNL system is very similar to the CNEL method. The day night average sound level measures the 24-hour average sound level, expressed in decibels, obtained after the addition of a 10 decibel penalty for sound levels which occur at night between 10 p.m. and 7 a.m. Intermittent or occasional noise, such as noise associated with stationary noise sources, is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale. The Percent-Noise Level (L percent) method is used in order to characterize and evaluate intermittent noise. This method gauges the percentage of time that intermittent noise exceeds the average decibel level during the measurement period.

Traffic noise in a community is often illustrated using *noise contours*. Noise contours represent lines of equal noise exposure, just as the lines on a weather map indicate equal

temperature or atmospheric pressure. The contours provide visual estimates of sound levels. The City's topography will have an effect on noise transmission from automobiles. In addition, noise in the canyons will be altered due to echoing effects. Generally, barriers (whether manmade or natural topography) located between a source and receiver absorb or reflect noise resulting in a quieter environment. Where barriers or landforms do not interrupt the noise transmission path, the contours are good estimates of average noise levels. However, areas where barriers interrupt the transmission, noise contours overestimate the extent to which noise intrudes into the community as it is virtually impossible to estimate each roadway segment for barrier noise attenuation, when specific projects are proposed, a site specific acoustical analysis will evaluate noise reduction provided by any barriers to the noise path. Noise contour maps are used in this report to describe existing noise levels along key roadways in the City.

Existing Noise Environment

A noise survey was conducted on February 20 and 21, 1991 at seven locations around the City. The noise measurement locations are shown in Exhibit 7-5 and the measurements are summarized in Table 7-3. The background noise levels ranged from 60 dB to 63 dB. This indicates that the city has noise levels typical of urban residential communities. Traffic along major roadways is the major source of noise. They include Palos Verdes Drive North, Palos Verdes Drive East, Crenshaw Boulevard, Hawthorne Boulevard and Silver Spur Road. Nonetheless, the City had relatively quiet residential areas. Occasionally, small planes and motorcycles created high frequency noises throughout the City.

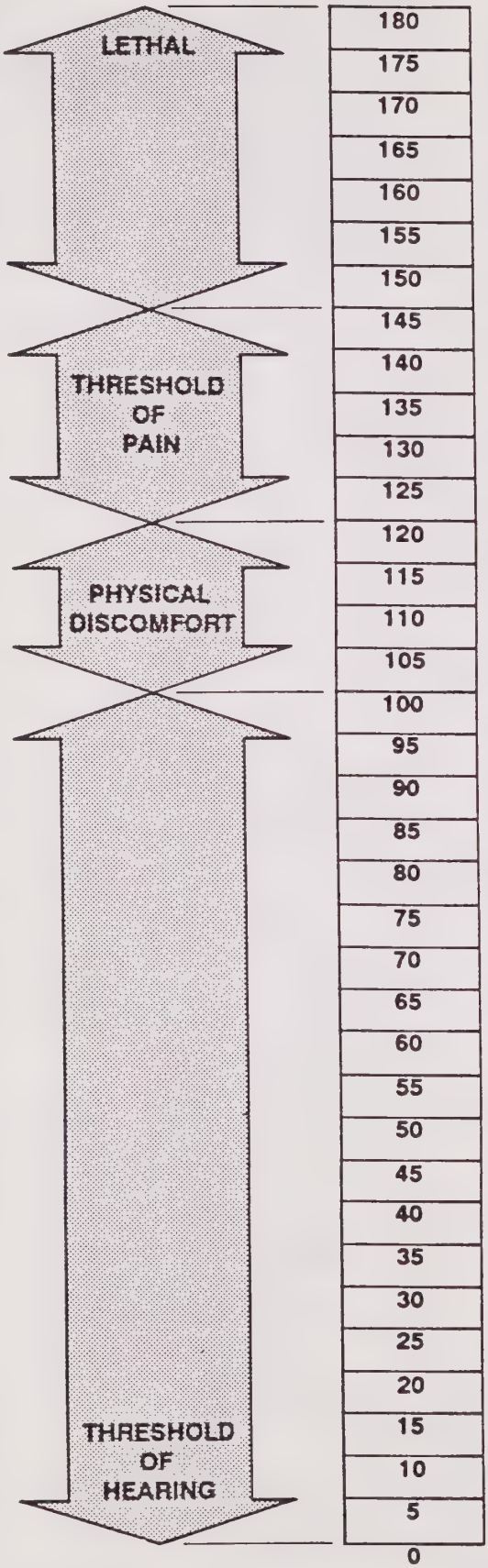
The noise measurements at the Rolling Hills Country Day School reflected noise levels for the intersection of Palos Verdes Drive North and Crenshaw Boulevard. Readings ranged from 72 dB to 86 dB. These were mostly due to the roar of traffic on the intersection, motorcycles, running buses, and student noises from the school. The site location was surrounded by trees and was located 60 feet from the road, 4 feet higher than the road elevation. The distance from the surrounding roadway and the surrounding vegetation may have buffered the noise levels coming from the road.

The intersection of Palos Verdes Drive North and Hawthorne Boulevard has noise levels ranging from 64 dB to 80 dB. The measurement site was Rock Bluff Park on the southwest corner of the intersection. It was an open area 50 feet from the street and 1½ feet lower in elevation than the road. Noise on site was generated solely by road traffic.

City of
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*The unit of sound is the decibel (dB). The loudness of sound is typically measured using a sound meter, the A-Scale of which corresponds closely to the way the human ear perceives sound. Thus the sound level for noise evaluations is frequently expressed in dBA.

DAVID EVANS AND ASSOCIATES, INC.

ACOUSTICAL SCALE

Exhibit 7-4

City of
Rolling Hills Estates

GENERAL PLAN



1. ROLLING HILLS COUNTRY DAY SCHOOL
2. ROCK BLUFF PARK
3. ROLLING HILLS HIGH SCHOOL
4. PENINSULA CENTER - THE VILLAGE
5. CRESTA VERDE
6. REMAX REALTY
7. AURORA STREET

DAVID EVANS AND ASSOCIATES, INC.

NOISE MEASUREMENT LOCATIONS

Exhibit 7-5

TABLE 7-3
EXISTING NOISE MEASUREMENTS

Site	Location	L_{max}	L_{10}	L_{33}	L_{50}	L_{90}
1	Rolling Hills Country Day School	86.0	81.4	77.8	76.5	72.8
2	Rock Bluff Park	80.0	76.3	73.8	72.2	66.8
3	Rolling Hills High School	78.0	72.0	70.0	68.3	66.0
4	Peninsula Center - The Village (commercial)	86.0	80.0	76.1	74.5	71.0
5	Cresta Verde (residential)	76.0	68.5	62.5	62.9	61.6
6	Remax Realty	88.0	83.0	79.2	77.9	74.3
7	Aurora Street (residential)	80.0	69.9	64.0	64.6	62.6

L_{max} the maximum sound level recorded during the noise measurement period.
L_{10}- the sound level exceeded 10 percent of the noise measurement period.
L_{33}- the sound level exceeded 33 percent of the noise measurement period.
L_{50}- the sound level exceeded 50 percent of the noise measurement period.
L_{90}- the sound level exceeded 90 percent of the noise measurement period; Also considered as the background noise level.

Source: David Evans and Associates, 1991

Noise levels at the Rolling Hills High School were dominated by traffic on Hawthorne Boulevard and Silver Spur Road. Student noise was minimal. Vehicle horns and motorcycles generated high pitched noises intermittently. Noise levels ranged from 64 dB to 78 dB at a location 90 feet from Hawthorne Boulevard at approximately the same elevation as the roadway. The site was on a walkway leading to the school buildings and was separated from the roadway by a surface parking lot with a 4-foot wall and a landscaped yard with trees.

The Peninsula Center is the commercial node of the City. Noise readings along Silver Spur Road by The Village showed a noise range of 65 dB to 86 dB. Commercial activities provided the background noise with road traffic dominating the noise levels. The site location was 20 feet from the roadway and approximately 10 feet above the road elevation. The wind speed at this site was observed to be greater than at other sites, registering as an additional noise source.

A residential street, Cresta Verde, was relatively quiet with noise ranging from 60 dB to 76 dB. Noise sources included small airplanes flying overhead, cars passing or climbing a steep

driveway. Residential activities which caused minor noise included garden watering, garage opening, piano playing, doors closing, birds singing, peacocks and other animals, horses, barnyard animals, and human conversation.

The intersection of Palos Verdes Drive East and Palos Verdes Drive North experienced the highest percentage of high level noises. They ranged from 72 dB to 88 dB attributed primarily to traffic noise and car stereo noise. The site was 35 feet from Palos Verdes Drive North and 2 feet higher in elevation than the roadway with no trees or walls to separate the site from the roadway. The higher percentage of loud noises at this site may be due to the time of the survey period which was nearer peak hour traffic than the survey periods for other intersections.

Aurora Street is a residential street in the northeastern section of the City. Noise levels, here, ranged from 61 dB to 80 dB. The site was relatively quiet except for the hum of traffic on nearby streets, probably Palos Verdes Drive North. The high levels recorded were due to dogs, small airplanes overhead, and occasional cars. Like the noise environment on Cresta Verde, the area was dominated by noise from residential activities and birds.

Calculated Traffic Noise Levels

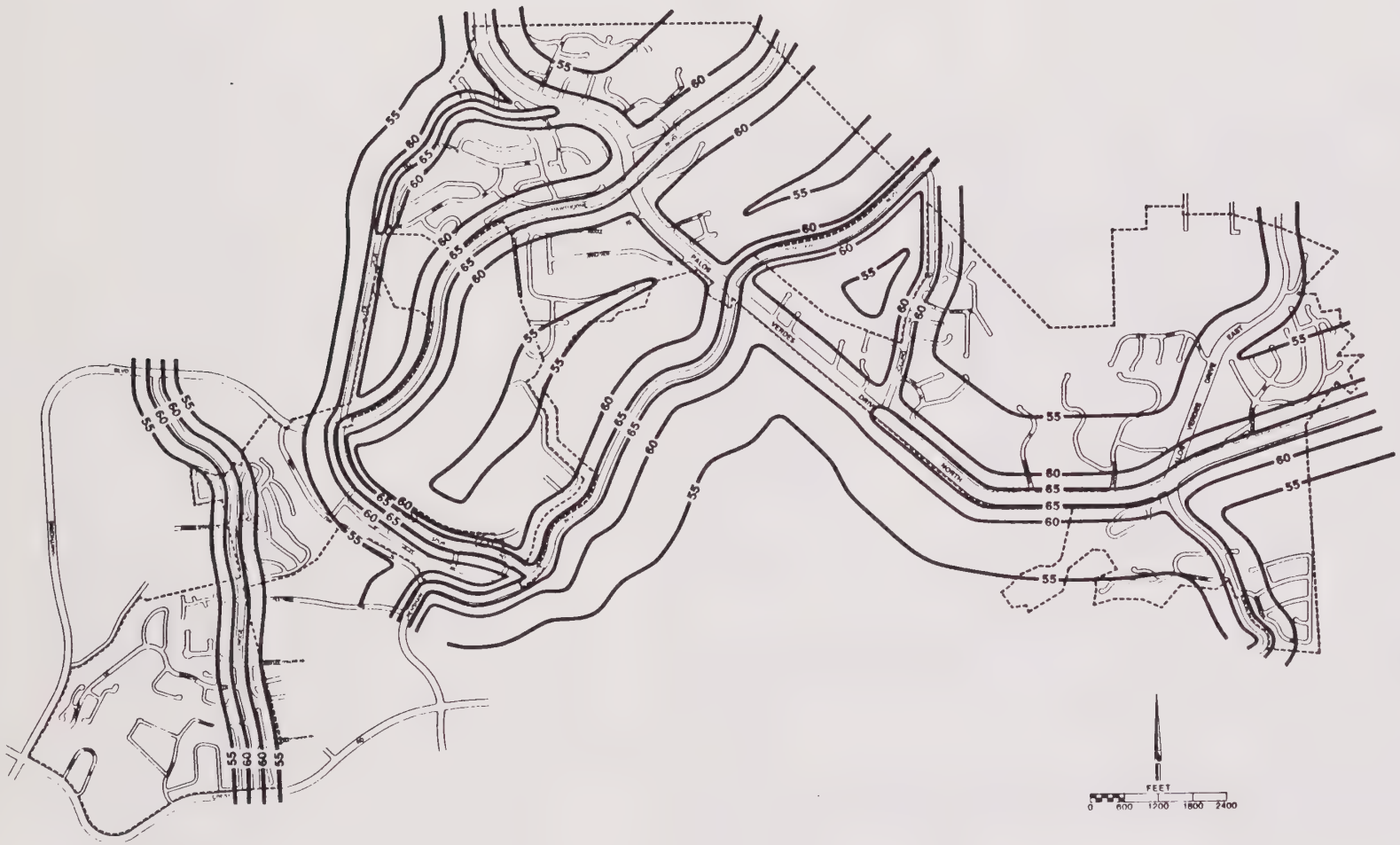
Residents of Rolling Hills Estates are exposed to a wide range of noise levels. Major noise sources include automobiles, trucks and the sand and gravel quarry operations. Transportation noise comes from major arterials - Hawthorne Boulevard, Crenshaw Boulevard, Palos Verdes Drives North and East.

The predominantly residential development of the city makes it noise sensitive for the most part. Other uses which may be disturbed by noise include schools, churches, and hospitals.

Existing traffic noise along major roadways was calculated using the Federal Highway Administration's Highway Traffic Noise Prediction Model (FHWA - RD-77-108), December 1978. The distances from existing roadway centerlines to the 55, 60, 65 and 70 dB CNEL contour lines are provided in Table 7-4 with the contours plotted in Exhibit 7-6.

City of
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GENERAL PLAN



CONTOURS REPRESENT NOISE LEVELS IN DECIBELS

DAVID EVANS AND ASSOCIATES, INC.

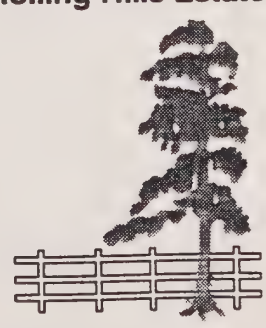
EXISTING NOISE CONTOURS
(Based on 1983 Traffic)

Exhibit 7-6

TABLE 7-4
EXISTING ROADWAY NOISE LEVELS (CNEL)

Roadway	From/To	Distance (in feet) from Roadway Centerline to CNEL (dB)			
		65 CNEL	60 CNEL	55 CNEL	At 50 Feet
Highridge Rd	Hawthorne/Crestridge	0	117	351	61.4
	Crestridge/Crest	0	109	430	61.9
Silver Spur Rd	Crenshaw/Hawthorne	83	237	742	64.7
	Hawthorne/Willow Wood	0	147	460	63.3
	Willow Wood/Palos Verdes Drive North	89	278	880	66.7
Hawthorne Blvd	Silver Spur/Palos Verdes Drive North	150	466	1472	68.0
	Palos Verdes Drive North/City Limit	184	574	1811	68.0
Rolling Hills Rd	Palos Verdes Drive North/City Limit	52	161	508	64.3
Crenshaw Blvd	Crestridge/Silver Spur	90	274	861	65.7
	Silver Spur/Palos Verdes Drive North	165	516	1628	68.4
	Palos Verdes Drive North/City Limit	93	275	864	65.5
Palos Verdes Drive North	City Limit/Silver Spur	74	232	731	65.9
	Silver Spur/Hawthorne	80	250	791	66.2
	Hawthorne/Crenshaw	60	188	594	65.0
	Crenshaw/Rolling Hills	118	371	1174	67.9
	Rolling Hills/Palos Verdes Drive East	152	470	1484	67.9
	Palos Verdes Drive East/City Limit	153	470	1483	67.8
Palos Verdes Drive East	North City Limit/Palos Verdes Drive N	0	127	400	63.2
	Palos Verdes Drive N/South City Limit	65	174	540	63.4

City of
Rolling Hills Estates



GENERAL PLAN

Public Safety Element

SECTION 8.1 INTRODUCTION

The Public Safety Element of the *Rolling Hills Estates General Plan* emphasizes the need for a citywide approach for emergency preparedness and hazards prevention. The implementation of the Public Safety Element programs and policies will reduce the potential for injury, damage and disruption due to both natural catastrophes and man-made hazards. The Public Safety Element establishes safety standards and programs designed to protect life and property.

As a State-mandated element, the Public Safety Element fulfills the requirements of *Section 65302(g) of the California Government Code* and the *State Planning and Zoning Law*. The Element sets goals and policies which address public safety issues of concern in the City. The Element provides the basis for a public safety plan, identifying standards and programs to protect public safety and outlining adequate facilities and services to meet the emergency needs of the City. Finally, the Element contains a comprehensive program to deal with the different hazards and disasters which may occur in the planning area.

The Public Safety Element also includes an inventory of both natural and manmade hazards such as earthquakes, flood plains, landslides, geologic hazards, urban and wildfire, and hazardous materials/wastes. In dealing with these issues, it is prudent to consider prevention as the first step in hazard mitigation where it is possible. This is accomplished by elimination of the hazard, isolation/avoidance of the hazard, or the regulation of land uses and structures in known hazard areas. Emergency planning involves the formulation of strategies to minimize human injury, property damage, and economic and social disruption. Emergency preparedness also focuses on those measures necessary to return the functions of the City to normal conditions soon after a disaster.

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SECTION 8.2 GOALS AND POLICIES

The Public Safety Element establishes goals, standards and programs to protect life and property. Potential hazards due to the area's geology, seismic hazards, urban and wild fire potential, dam inundation and flooding potential, hazardous materials contamination, and crime are also addressed in the following policies. The goals and policies of the Public Safety Element call for the development of emergency plans and procedures in case of a community-wide disaster and the elimination of hazards in the planning area.

Issue: Critical Facilities

Critical facilities refer to those facilities occupied by dependent populations (hospitals, schools, etc.) and those that are designed to protect public health and safety. It is important that critical facilities remain functional during disasters and emergencies so that they may continue to serve the rest of the City.

Goal 1: **To the fullest extent possible, the City will work with the County to ensure that critical structures remain safe and functional in the event of a disaster.**

Policy 1.1 Ensure that existing critical and semi-critical structures throughout the City meet seismic safety standards within ten years and that new facilities are developed to upgraded standards.

1.1.1 Implementation Measure: The City will work with Los Angeles County Building and Safety Department and other agencies in ensuring that all proposed structures in the City meet current seismic safety code requirements.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 1.2 Designate and develop specific critical facilities as emergency centers to serve the entire City and work with other Cities to maintain existing trauma care facilities that serve the region.

1.2.1 Implementation Measure: The City will meet with other communities in the region to discuss the loss of trauma care centers in the region. The City will examine the feasibility of establishing the development of a critical/trauma care unit at one of the local clinics or hospitals in the region. The City will consider the establishment of such a facility as part of the discretionary review of future development proposals involving clinics, hospitals, or medical offices.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General Fund

Policy 1.3 Work with the County to ensure that all fire equipment remains operable and adequate to respond to a major disaster.

1.3.1 Implementation Measure: The City will work with the Los Angeles County Fire Department to ensure that fire protection services are maintained at adequate levels. City staff will monitor the City's fire protection rating and cooperate with the Fire Department in the correction of deficiencies.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General Fund

Policy 1.4 Cooperate with the Los Angeles County Sheriff's Department to ensure that law enforcement services are ready and available to serve the City in the event of a major disaster.

1.4.1 Implementation Measure: The City will work with the Los Angeles County Sheriff's Department to ensure that law enforcement services are maintained at adequate levels. City staff will monitor the City's contract and budget with the Sheriff's Department to ensure that adequate service levels are maintained.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General Fund

Policy 1.5 Support earthquake strengthening and provision of alternative or backup services, such as water, sewer, electricity, and natural gas pipelines and connections, especially in areas of high seismic or geologic high hazard or where weak segments are identified by existing or future studies.

1.5.1 Implementation Measure: The City will identify those active and potentially active fault traces as for special study. Future development within the areas will have to provide geotechnical studies indicating the location of the fault trace to proposed improvements and identify appropriate mitigation. The City will evaluate the seismic

risk to existing infrastructure in these areas and where appropriate, examine the feasibility of mitigating the risk over time.

Timing: 1993 for initiating study
Agency: Planning Department and Public Works
Funding: General Fund

Policy 1.6 Enforce seismic design provisions for Seismic Zone 4 of the Uniform Building Code to ensure adequate review and inspection to ensure that stairways and elevators are adequately strengthened and nonstructural components such as emergency generators, water heaters, computers, and cabinets are securely anchored in critical facilities.

1.6.1 Implementation Measure: The City will work with Los Angeles County Building and Safety Department and other agencies in ensuring that all proposed structures in the City meet current seismic safety code requirements.

Timing: Immediate and ongoing
Agency: Planning Department/Public Works
Funding: General Fund

Policy 1.7 Require fault investigations along traces of the Palos Verdes and Cabrillo faults to comply with guidelines implemented by the Alquist-Priolo special Studies Zone Act. Buildings for human occupancy should be setback a minimum of 50 feet from those faults that are shown to be active or from fault traces where the risk cannot be determined.

1.7.1 Implementation Measure: The City will continue to use the Uniform Building Code and update as necessary to ensure seismic safety.

Timing: Immediate and ongoing
Agency: Planning Department/Building & Safety Dept.
Funding: General Fund

Policy 1.8 Require review by a structural engineer when a critical building or facility undergoes substantial improvements.

1.8.1 Implementation Measure: City staff will review existing ordinances to ensure that the appropriate review requirements are included within them. In addition, the

Seismic Safety Ordinance will require a structural engineer to review development proposals within designated Special Studies Zones.

Timing: Immediate and ongoing
Agency: Planning Department/Public Works/Building & Safety Dept.
Funding: General Fund

Policy 1.9 Require site specific geotechnical analysis in areas of potential liquefaction, especially in and adjacent to the Chandler landfill.

1.9.1 Implementation Measure: Future development within areas designated as having a liquefaction risk will be required to evaluate and mitigate the risk prior to development via the environmental review process.

Timing: Immediate and ongoing
Agency: Planning Department/Building & Safety Dept.
Funding: General Fund

Issue: Future Development

The City can prevent the creation of additional hazards in the planning area through the review of proposed developments, making sure that they are not exposed to existing hazards and do not create new ones to adjacent land uses.

Goal 2: **Require that the City's Planning and Engineering Departments to review projects future development in the City.**

Policy 2.1 Discourage development which is adjacent to earthquake faults and other geological hazards.

2.1.1 Implementation Measure: All development will comply with the Seismic Hazards Overlay Zone.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General Fund

Policy 2.2 Prohibit residential development on non-engineered fill of any kind.

2.2.1 Implementation Measure: The City will continue to enforce the existing Uniform Building Code and the requirement to install methane barriers for new construction within the vicinity of the landfill.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.3 Develop stringent site design and maintenance standards for areas with high fire hazard or soil erosion potential.

2.3.1 Implementation Measure: The City will work with the Los Angeles County Fire Department to review current standards for wildfire prevention. The City will work with the County Fire Department in improving standards and/or regulations where required.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 2.4 Regularly review the technical data on public safety and seismic safety for use in the decision-making process.

2.4.1 Implementation Measure: City staff will update and amend the Master Environmental Assessment when appropriate following the review of more site-specific geotechnical studies and reports.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.5 Continue to require preliminary investigations of tract sites by State-registered geotechnical engineers and certified engineering geologists (Chapter 70 County Building Code) and ensure regular inspection of grading operations.

2.5.1 Implementation Measure: The City will continue to enforce existing Uniform Building Code and Safety regulations.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.6 Encourage residents to plant groundcover to reduce the brush fire hazard in areas adjacent to canyons, and to maintain native drought tolerant slope cover and provide appropriate irrigation to maintain plant cover and prevent erosion.

2.6.1 Implementation Measure: The City will publish a brochure outlining groundcover that is effective in reducing the risk of wildfire. The brochure should be included with the City's quarterly newsletter.

Timing: Immediate and ongoing
Agency: Planning Department and City Manager
Funding: General fund

Policy 2.7 Maintain storm drains to prevent local flooding and debris flows, and encourage residents to assist in maintaining those drains that are the responsibility of the homeowner.

2.7.1 Implementation Measure: The City will cooperate with the Los Angeles County Public Works Department in maintaining storm drains in the City.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 2.8 The City will continue to enforce the Water Conservation Ordinance adopted in 1991.

2.8.1 Implementation Measure: The City will continue to implement the Water Conservation Ordinance and promote the use of drought-tolerant landscaping and irrigation.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.9 Avoid construction in canyon bottoms and participate in the National Flood Insurance Program. Require new development or expansion of existing development adjacent to canyons to assess potential environmental impacts from increased run-off and erosion and evaluate appropriate mitigation.

2.9.1 Implementation Measure: The City will implement the General Plan's Land Use Policy and evaluate the flood hazard potential in future environmental review. The City will ensure that development within areas designated as a Flood Hazard Overlay Zone mitigate the potential flooding impacts.

Timing: Immediate and ongoing
Agency: Planning Department
Funding: General fund

Policy 2.10 Continue to enforce a Class B Roofing Ordinance for new development but encourage residents with wood shingle/unrated roofing materials to retrofit or upgrade their roofs with resistant eaves and awnings.

2.10.1 Implementation Measure: The City will continue to enforce existing ordinances and regulations that apply to roofing materials. The City will require old roofs to be removed prior to reroofing to increase fire-resistance of the structure.

Timing: Immediate and ongoing
Agency: Planning Department/Building & Safety Dept.
Funding: General fund

Policy 2.11 Support the development of secondary water supplies for emergency water flow needs in an emergency.

2.11.1 Implementation Measure: The City will examine the feasibility of developing secondary emergency.

Timing: 1994
Agency: Public Works Department
Funding: General fund

Issue: Disaster Planning

So as to minimize the damage to life and property that natural and man-made disasters may cause, a plan for prevention, preparedness and reconstruction will be developed.

Goal 3: Plan and provide for the occurrence of disasters and emergencies.

Policy 3.1 Develop and coordinate medical assistance procedures in the event of a major disaster.

3.1.1 Implementation Measure: City staff will update the existing emergency preparedness plan and prepare an emergency preparedness brochure which will be distributed to the community.

Timing: 1993
Agency: City Manager
Funding: General fund

Policy 3.2 Inventory and, where necessary, acquire supplemental disaster communication equipment and other equipment, tools, and supplies.

3.2.1 Implementation Measure: City staff will complete an inventory of supplies and personnel as described in the Emergency Preparedness Program outlined in this Element.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

3.2.2 Implementation Measure: A survey will be done by the City periodically to establish an inventory of equipment which could be used in the event of a major disaster.

Policy 3.3 Ensure that adequate provisions are made to supply drinking water for extended periods of time in the event of a major disaster.

3.3.1 Implementation Measure: City staff will inventory sources of potable water that could be used in the event of an emergency and the means to distribute that water to residents and others in the Planning Area.

Timing: Immediate and ongoing
Agency: Public Works Department
Funding: General fund

Policy 3.4 Develop procedures to follow in the event of flooding, erosion, and possible reservoir failure and investigate ways of reducing the likelihood of their occurrence.

3.4.1 Implementation Measure: The City will review contingency plans developed for the Multi-functional Management Hazard Plan.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 3.5 Ensure that the City Hall maintains a current emergency supply of water, food, blankets, and first aid to provide for all employees for a 3 day period.

3.5.1 Implementation Measure: A City staff person will be assigned the task of compiling a list of supplies and maintaining an adequate stockpile.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 3.6 Encourage private businesses to develop disaster preparedness plans for their employees.

3.6.1 Implementation Measure: The City will prepare and distribute a brochure outlining recommendations for stockpiling supplies for employees.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 3.7 Support the development and further implementation of a peninsula-wide disaster plan.

3.7.1 Implementation Measure: The City will coordinate its disaster planning efforts with neighboring jurisdictions in the region.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 3.8 Increase public awareness of City emergency response plans, evacuation routes and shelters, and in ways to reduce risks at the home and office.

3.8.1 Implementation Measure: The City will prepare a brochure outlining procedures to follow in the event of a major disaster. The brochure will be distributed to every household and business in the City.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

3.8.2 Implementation Measure: The City will encourage the implementation of a City-wide Neighborhood Watch program.

Timing: 1993
Agency: City Manager
Funding: General Fund

Policy 3.9 Establish and maintain a Multi-hazard Functional Plan, mutual aid agreement with neighboring jurisdictions, and coordinate with the American Red Cross and Los Angeles County Fire, Sheriff, and Public Social Services to develop specific plans for responding to emergencies.

3.9.1 Implementation Measure: The City will submit copies of its Multi-functional Hazard Management Plan to the Los Angeles County Fire and Sheriffs Departments for review. The City will review similar plans prepared by neighboring cities.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 3.10 Coordinate emergency planning efforts with building managers of high-occupancy facilities, dependant care centers (nursing homes, day care centers, etc.) and critical facilities located in the City to facilitate emergency response.

3.10.1 Implementation Measure: The City will send brochures outlining emergency procedures to all critical facilities. The City will cooperate with the Los Angeles County Fire Department during the inspection of these facilities.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Issue: Individual Responsibilities

Individuals and agencies should take on the responsibility of protecting themselves from harm. Also, assistance from other individuals and agencies will provide the City with increased manpower and resources to better protect public health, safety and welfare.

Goal 4: **Assign key individuals in both the public and private sectors the responsibility of implementing public safety programs.**

Policy 4.1 Provide City officials with a basis for disaster preparedness decision making and establish a public education program for disaster preparedness.

4.1.1 Implementation Measure: The Emergency Services Coordinator will conduct quarterly meetings with City personnel to ensure they are familiar with procedures outlined in the Multi-functional Hazard Management Plan.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 4.2 Establish a line of command to ensure that the decision making process will function satisfactorily in the event of a major disaster.

4.2.1 Implementation Measure: The City will implement the Multi-functional Hazards Management Plan which has been adopted by reference.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 4.3 Coordinate with the citizen groups and organizations to establish a viable body to provide emergency assistance in the event of a natural disaster.

4.3.1 Implementation Measure: The City Emergency Services Coordinator will work with local equestrian groups and other organizations to establish a *Rolling Hills Estates Search and Rescue Team*. The City will ensure that multipurpose trails are

maintained in order to be serviceable by emergency vehicles in the event of a disaster.

Timing: Immediate and ongoing
Agency: City Manager/Public Works
Funding: General fund

Policy 4.4 Encourage cooperation among adjacent communities to provide back-up law enforcement assistance in emergency situations.

4.4.1 Implementation Measure: The City will submit copies of its Multi-functional Hazard Management Plan to the Los Angeles County Fire and Sheriffs Departments for review. The City will review similar plans prepared by neighboring cities.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Issue: Crime

The City of Rolling Hills Estates and the L.A. County Sheriff's Department will continue to work together to provide residents with safety and security. Criminal activities will be met with measures designed to deter criminal activity.

Goal 5: **Reduce local crime, to the greatest extent possible.**

Policy 5.1 Work with, and support the Sheriff's Department in crime prevention and law enforcement efforts, to make sure there are adequate resources to meet the needs of the community.

5.1.1 Implementation Measure: The City will conduct an annual review of its contract with the Los Angeles County Sheriffs Department to ensure current service standards are maintained. Alternatives will be considered if service levels are considered inadequate.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 5.2 Cooperate with neighboring cities, Los Angeles County, California State and U.S. Federal agencies in crime prevention and law enforcement.

5.2.1 Implementation Measure: The City will cooperate with all law enforcement agencies in combating crime.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 5.3 Evaluate the incidence of crime and develop measures needed to deter crime or apprehend the criminals.

5.3.1 Implementation Measure: The City will monitor crime statistics for the peninsula and the City. The City will meet with Los Angeles County on a regular basis to discuss programs, ordinances, and other measures that will be effective in combating crime.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Issue: Hazardous Materials

The unhealthful effects of certain chemicals and substances has led to extensive regulation of identified hazardous materials. The City should be active in the regulation of the use, generation, transport and disposal of hazardous materials in the City in order to protect the health and safety of residents.

Goal 6: Reduce the potential for hazardous waste contamination in the City.

Policy 6.1 Restrict the travel of vehicles carrying hazardous material through the City.

6.1.1 Implementation Measure: The City will ensure the Los Angeles County Sheriff's Department and the California highway Patrol enforce licensing and current laws regarding the transport of hazardous materials through the City.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 6.2 Monitor and limit the use and production of hazardous materials by businesses and industries in the City.

6.2.1 Implementation Measure: The City will ensure that the Los Angeles County Fire Department conduct regular inspection of major users in the City. The Emergency Services Coordinator will monitor the results.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 6.3 Ensure that no hazardous materials are dumped in Chandler Quarry landfill or in any other areas of the City.

6.3.1 Implementation Measure: The City will work with Los Angeles County to ensure that periodic inspections of the Chandler Quarry are conducted.

Timing: Immediate and ongoing
Agency: Planning Department and City Manager
Funding: General fund

Policy 6.4 Ensure that the Los Angeles County Sanitation District implements its closure and reclamation plans for Palos Verdes Landfill.

6.4.1 Implementation Measure: The City will meet with the Los Angeles County Sanitation District to review the District's reclamation and redevelopment plans. The City will cooperate with the District to ensure future development plans are consistent with those outlined in the General Plan.

Timing: Immediate and ongoing
Agency: Planning Department and City Manager
Funding: General fund

Policy 6.5 Support County Hazardous Materials Management Plan (adopted by C.C. Ordinance 516) objectives and enforcement of current Fire Code regulations regarding the storage of hazardous materials.

6.5.1 Implementation Measure: The City's Emergency Services Coordinator will review current ordinances and practices to ensure that everything possible is being done to implement the County's Hazardous Materials Management Plan.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

Policy 6.6 Work to promote the safe use and disposal of household hazardous wastes.

6.6.1 Implementation Measure: The City will implement those programs outlined in the Household Hazardous Waste Element.

Timing: Immediate and ongoing
Agency: City Manager
Funding: General fund

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SECTION 8.3 PUBLIC SAFETY PLAN

INTRODUCTION

This section of the Public Safety Element provides an assessment of risk for both natural and man-made hazards in the city. In addition, the Element provides the basis for emergency preparedness in the city.

The following issues need to be considered in disaster and safety planning efforts:

- The City needs to coordinate with the County Fire, Sheriff, Area G Emergency Services Coordinator, and City Administrator's Office to develop an effective Rolling Hills Estates Multi-Hazard Function Plan. Emergency plans for the City of Rolling Hills Estates must also reflect the nature of impacts likely to result from earthquakes, storms, and fires.

- The City needs to coordinate with County Public Social Services and the American Red Cross to designate and operate emergency shelters and reception centers. Ideally, shelters should serve as first aid stations, public information and emergency coordination centers, as well as gathering and collection areas for displaced or evacuated people.

- In addition to regular training exercises, coordination with self-help neighborhood and community groups is necessary to maintain the efficiency of the City's emergency response.

- Increased public awareness of City emergency response plans, evacuation routes, and shelters, in addition to information on how to reduce risks at the home and office, improves overall safety in the City.

- Provisions need to be made for traffic control contingencies along City designated disaster routes, especially for Palos Verdes Drive North which can become highly congested at certain times of the day.

- The Newport-Inglewood Earthquake Scenario by Toppozada et al., 1989 needs to be assessed in the development of emergency planning contingencies for the City. In addition, a major earthquake on the Palos Verdes fault should also be used as a worst-case earthquake disaster for emergency planning purposes.

- Reconstruction policies are necessary to guide rebuilding and reconstruction in the aftermath of a major earthquake or other disaster. Rebuilding decisions often require detailed structural analysis and geotechnical/geological studies. Some California jurisdictions require studies if more than 50 percent of the property is damaged in a disaster to ensure that repair is permanent and not a public safety hazard.

LAND USE POLICY AND PUBLIC SAFETY

Many of the safety issues that require consideration in future planning are directly related to Southern California's seismic setting, while other issues are particular to the Peninsula's distinctive geologic and topographic setting. Southern California is located in a seismically-active region of the world, experiencing on average, an earthquake of Magnitude 4 or greater every four years.

The Los Angeles Basin is traversed by many active faults and folds associated with the boundary between the North American and Pacific plates. Some of these faults include the San Andreas, Newport-Inglewood and Palos Verdes. The basin is also subject to compressive forces responsible for many east-west trending folds, including the Palos Verdes Hills, the Puente Hills, and the chain of hills and mesas that stretch along the length of the Newport-Inglewood fault.

The climate, topography, and local geology also play important roles in defining the threat to the City from fires and floods. The native soils and local climate sustain certain kinds of chaparral vegetation. The varieties of chaparral found on the peninsula contains particularly high concentrations of volatile oils which are extremely flammable. Areas where stands of this kind of vegetation are especially dense, such as along canyon bottoms, are very susceptible to brush fires. The ridge and canyon topography also control where the primary flood hazards in the City occur, primarily along canyon bottoms.

Rolling Hills Estates is largely developed into low and medium-density residential uses, with only smaller areas designated for high-density residential and light commercial uses. Large-scale growth is not anticipated to be a major planning factor in the coming years. Small-scale development will likely occur in the form of infilling of isolated parcels and expansion of existing residential lots. Given the expected growth pattern and environmental setting, certain safety planning issues are apparent. The following are findings, selected and abbreviated to present principal safety planning issues.

- The City is at risk from strong ground motion from a number of nearby seismically active faults. Potential damage to new and most existing development will be slight to moderate though severe damage to vulnerable buildings cannot be precluded. Given the risk, critical facilities must be designed and maintained with a greater safety margin.

- A major earthquake on the Newport-Inglewood, Palos Verdes, Cabrillo, or Torrance-Wilmington faults has the potential for setting into motion multiple events, including injuries, crowd control problems, landslide-blocked roads, hazardous materials releases, and isolated structural damage and/or fires. A major earthquake on the Palos Verdes fault is a credible worst-case scenario and must be considered in the development of an emergency response plan.

- Certain localities of undeveloped land in the northeast section of the City are underlain by the Palos Verdes fault or man-made sediments prone to earthquake-induced ground failure (liquefaction), making any new development in these areas susceptible to damage.

- Small, potentially active landslides will continue to pose constraints to new development and enlargement of existing residential lots adjacent to canyons areas; and one postulated "Silver Spur Landslide Complex" remains a long-term threat unless its existence is adequately disproved.

- The failure of the Palos Verdes Reservoir is unlikely. If the dam is breached, the impact on Rolling Hills Estates would be minimal, as long as new development does not occur in the potential inundation zone.

- Flood risk in the City will remain low if canyon drainages remain undeveloped, although long-term planning for drainage devices may be needed to control runoff and prevent local ponding.

- Chaparral-filled canyon areas will continue to pose a significant fire hazard in the City, highlighting the need for strict enforcement of brush management and fire prevention programs. The risk of fire is as much influenced by brush hazards in neighboring jurisdictions.

- Hazardous materials accidents in the City are not likely to cause widespread impact, however, a major accident in neighboring industrial districts could effect the entire City.

- The closed Palos Verdes Landfill received large volumes of wastes, some of which may be hazardous materials, through the early 1980's; contamination is a site constraint, as well as a threat to a shallow ground water aquifer underlying the Los Angeles Basin.

The degree of risk from these hazards are separated into three distinct categories:

- *Acceptable Risk.* Level of risk below which no specific action by government is deemed to be necessary.

- *Unacceptable Risk.* The level of risk above which specific action by government is deemed to be necessary to protect life and property.

- *Avoidable Risk.* Risk not necessary to take because individual or public goals can be achieved at the same time, or less, total "cost" by other means without taking the risk.

Appropriate risk must be determined with maximum citizen input. In making this determination, the appropriate planning response to a potential hazard involves the judgement, either expressed or implicit, of the risk that is acceptable. There is no such thing as a perfectly hazard-free environment. Natural and man-made hazards of some kind and degree are always present. However, efforts can be productively undertaken to try to mitigate the consequences of known hazards.

For planning purposes, hazards, and the degree of risk in Rolling Hills Estates has been further refined. The objective of the Public Safety Element is to provide the community with a comprehensive inventory of those hazards that are a major concern in the community (geologic hazards, flooding, and fire hazards) and to develop appropriate policies that address those hazards.

The Public Safety Element Background Report (Section 8.4 of this Element) provides a detailed inventory of hazards in the city. For planning purposes this background information should be consulted to determine the nature and extent of any hazards that may be present on a site. This section of the Public Safety Element provides for a *Hazard Management Overlay Zone* which identifies those areas where some hazard is present which will need to be considered or evaluated prior to any development proposal.

For planning purposes, the City of Rolling Hills Estates has been divided into a series of risk zones including the following:

- ***High Risk.*** Areas where environmental hazards are significant enough to warrant on-site investigation to evaluate the risk and to design appropriate mitigation.

- ***Moderate Risk.*** Areas where a risk is likely to be present and current precautions sustained in building, public, and safety codes should be adequate.

- ***Low Risk.*** This designation applies to those areas subject to the same environmental hazards are that found elsewhere in the region.

The categories of risk discussed above considers the following hazards:

- ***Seismic Hazards*** and fault rupture zones. Areas where fault traces are present and fault investigations should be completed prior to development.

- ***Wildfire Risk.*** Areas where brush hazard factors, vegetation type, proximity to source, and slope present a moderate to high risk of fire hazard.

- ***Flood Hazard.*** Areas at risk due to flash flooding in channels or inundation due to a break of the Palos Verdes Reservoir.

- ***Slope Stability.*** Area where potentially active landslides are present and mitigation may be required to stabilize the slopes.

- ***Landfill Gases.*** Areas of known landfill (i.e. Howlet Park, Botanical Gardens, Hawthorne Canyon, and Palos Verdes Landfill) may generate gases. To mitigate any hazardous risks associated with these gases, proposed developments within 1,000 feet of a landfill must submit a special report to the Building Department. The report must describe methods by which the proposed development will prevent gas intrusion and prevent the accumulation of gases within or under enclosed portions of a building.

Exhibit 8-1 indicates those areas where the above risks are present and the Hazards Management Overlay designation applies. The Planning Department will require the following actions to be completed prior to issuance of a building permit for areas located within the Hazards Management Zone Overlay designation.

- All development request must undergo a preliminary environmental assessment to determine the nature of additional study required.

- Appropriate evaluation by seismic, flooding, geotechnical, or wildfire risk must be completed by knowledgeable professionals to determine the nature and extent of risk.

- Appropriate mitigation must be identified and implementation must be monitored.

HAZARDS REDUCTION/EMERGENCY PREPAREDNESS PROGRAMS

Hazard reduction programs are designed to improve the safety of existing development. For example, some older development, being built to outmoded code standards, could benefit from seismic upgrading. Owners of older residences or commercial structures may voluntarily upgrade, or if a commercial facility is undergoing significant reconstruction, newer safety standards can be incorporated. Additional examples of hazard reduction programs include:

- Strengthening of waterlines and utilities infrastructure and the development of emergency back-up capability by public utilities serving the City.

- Regular fire safety inspections and fire flow tests to identify areas with cracked or damaged water lines.

- Auxiliary water systems to supplement existing water lines to ensure needed fire flow if pipelines are damaged. Gravity-fed or generator-operated pumps from swimming pools or tanks can also supplement flow.

- Requiring planted slopes to prevent erosion.

- Planning for emergency response at the government and individual level reduces hazards and risks to the public.

The State and Federal Governments require local governments to prepare and maintain emergency plans as a condition of certain funding assistance. The City of Rolling Hills Estates is planning to update its local emergency plan to meet current standards found in Office of Emergency Services (OES) Multi-Hazard Functional Planning Guidelines (OES, 1985). One of the first steps of a Multi-Hazard Functional Plan (MHFP) is to create an emergency response organization. The main elements of the Rolling Hills Estates organization will provide the following functions:



City of Rolling Hills Estates

GENERAL PLAN

- Fault Caution Zone
- Landslide
- Major Slopes (Gradient Greater Than 40%)
- Flood Hazard
- Fire Hazard

NOTE: Boundaries of risk zones are approximate.

DAVID EVANS AND ASSOCIATES, INC.

GENERALIZED RISK ASSESSMENT

Exhibit 8-1

- *Emergency Operations Center (EOC)* - The EOC coordinates and directs local and mutual aid resources to urgent crisis situations in the City. The center operates as a liaison with the County, other City emergency operations centers, and the Governor's Office of Emergency Services.

- *County Sheriff Department* - The Sheriffs Department provides perimeter and crowd control, restricts and reroutes traffic, and manages evacuations as required.

- *County Fire Department* - The Fire Department provides fire suppression, emergency medical, urban search and rescue, and hazardous materials response and control services.

- *County Department of Building and Safety* - The Department of Building and Safety provides emergency cleanup of debris and inspections of hazardous buildings and County utility services.

- *City Agencies* - The City will provide or support emergency functions, such as search and rescue, management of fatalities and injured persons, emergency shelter, coordination with private utilities, and dissemination of public information. The City will provide emergency cleanup of debris in the City's public right-of-ways.

Disaster preparedness and response planning requires an assessment of hazards, identification of functions and resources, and development of a procedural network under a variety of disaster scenarios. Responsibility for developing short-term and long-term actions to reduce risk and lessen the impact of a disaster falls on the Public Safety Element, and will support objectives of the City MHFP.

Risk Assessment

The City of Rolling Hills estates Public Safety Element identifies earthquake shaking, associated fissuring and ground failure; storm induced landslides and local flooding; and brush fires and hazardous materials accidents as emergency planning issues. A major earthquake presents the greatest challenge. Earthquakes occur with little or no warning and often set into motion multiple events, some worse than the original earthquake, and some similar to situations posed by other disasters. A Newport-Inglewood Earthquake is most likely to occur within a time frame of interest for most building decisions; however, a major earthquake on the Palos Verdes fault is a credible possibility and is useful as a worst-case disaster planning scenario.

The following are selected planning elements that need to be considered in the development of emergency response plans:

- The identification of an Emergency Operations Center, and potential temporary shelters and reception areas. The City Hall will serve as the EOC.

- The identification of casualty collection points and sheriff/fire staging areas. The Public Safety Element identifies these areas.

- The designation and training of the emergency response organization, which would include representatives from County agencies, City departments, utilities, schools, and volunteer groups. The Multi-function Hazard Plan and policies contained in this element together with supporting implementation measures identify appropriate actions that need to be followed.

- The identification of skilled human resources, such as amateur radio operators, heavy equipment operators, equestrian rescue units, and medical support personnel. Local medical resources, such as the Palos Verdes Medical Center, would be an important participant in the City's emergency response. The Public Safety Element includes policies and implementation measures calling for the identification of individuals and organizations which would comprise such an emergency response team.

- The planning for emergency equipment needs, including battery powered and mobile generators, cranes, bulldozers, large ladders; personal gear such as respirators, gloves, and protective clothing, medical equipment and supplies, and tents for temporary shelter and emergency medical centers. The Public Safety Element includes policies and implementation measures calling for the identification of individuals and organizations which would comprise such an emergency response team.

- The development of organizational charts and brief operational checklists and phone numbers. The Public Safety Element calls for the development of such a list and a periodic review of the procedures City staff will follow in the event of a major emergency.

- The development of an inventory of emergency supplies and coordination with managers of high occupancy facilities, dependent care centers (nursing homes, day care centers), and critical facilities located in the City.

- Conducting regular training exercises or drills with the County to evaluate how well the City emergency response organization responds to a regional simulated disaster. A number of Public Safety Element goals and policies call for the coordination of emergency procedures with County agencies.

- The development of programs that increase public awareness of potential hazards and risks so that they are familiar with procedures to follow in the event of a major disaster. The Public Safety Element calls for the preparation of a brochure that would be distributed to all households and businesses in the City.

- The development of voluntary and neighborhood self-help groups that can respond to light rescue, local fire control, and medical assistance needs. A Public Safety Element policy and implementation measure calls for the creation of a City search and rescue team.

- The City must provide where possible for alternative or back-up essential lifelines, such as water flow, sewer, and electrical services; and redundant communication lines, such as cellular phones, to ensure efficient response to a crisis, including provisions for specific emergency radio frequencies for the City MHFP.

- The City must draft mutual aid agreements with neighboring cities, and with County, State, and Federal emergency relief agencies; and with private enterprises such as Red Cross, Salvation Army, and medical institutions to assist in shelter and relief operations.

After a disaster, and an earthquake in particular, short-term disaster recovery requires disaster operations that are not as immediate as fire suppression or medical attention, but are equally important to protecting public safety. The Multi-hazard Functional Plan will address short-term recovery, such as clearing City streets and transportation corridors to be used for evacuation and emergency access. The Multi-hazard Functional Plan will also contain provisions for restoring utilities and performing safety inspections of structures or buildings weakened by an earthquake, or other consequences resulting from fire, flood, or dam failure.

One short-term consequence of a disaster is the temporary displacement of residents and/or workers stranded in the City. The County Department of Social Services maintains an inventory of schools, recreation facilities, and community facilities that can be used as temporary shelters, as part of the County Multi-hazard Functional Plan. No County

temporary shelters have yet been designated for the City of Rolling Hills Estates. Exhibit 8-2 shows proposed temporary emergency shelters for the City based on guidelines developed in coordination with Public Social Services. Public Social Services intend to add these facilities to their County-wide inventory.

Shelters should be structurally sound, if indoors, or located adjacent to an open space, such as a park or school. They should provide temporary housing and serve as emergency reception and communication centers.

The Multi-hazard Functional Plan does not address longer-term recovery. Two critical issues that need to be considered in the long-term recovery of the City following a major disaster includes the following:

- The long-term homelessness created by heavily damaged property or houses, through earthquake, landslide, or mud or debris flow; and
- The rebuilding of structures in areas heavily damaged in a disaster.

Longer-term housing needs will be necessary while damage is assessed, disaster assistance applications are considered, and rebuilding take place. Prezoning to permit temporary housing, such as trailers or tents, can facilitate the recovery process.

After a damaging storm or earthquake, the City will need to:

- Define the affected area;
- Assess the effectiveness of emergency repairs and identify permanent repairs options;
- Help individuals and businesses qualify and apply for funds to repair and rebuild; and
- Incorporate actions to mitigate future hazards into plans to rebuild and regulate new development in heavily damaged areas.

Financial impact caused by business disruption (and loss of revenue), or the homeowners desire to reoccupy a damaged property, increases the pressure to rebuild rapidly after a disaster. Rational building decisions must be made by the reviewing agency at this stage. A reconstruction ordinance allows the definition of standards for rebuilding decisions before

a disaster occurs. Circumstances for bringing the damaged property up to current code or some other acceptable level are usually incorporated into such an ordinance.

A main element of a reconstruction ordinance is the "preliminary assessment of damage" and initial recommendations. Rebuilding decisions often require detailed geotechnical/ geologic studies or structural analysis to determine and assess the effectiveness of emergency repairs, and identify appropriate permanent repairs. One option is to require environmental studies if more than 50 percent of the property is damaged in a disaster, whether it is caused by structural damage or massive landsliding, fault rupture, or other ground failure.

Cities may enact an Interim Ordinance as an urgency measure in order to consider "consistency with the General Plan" for up to two years, if the existing use may endanger public safety if rebuilt. The interim ordinance, however, has been a liability to some local governments. A reconstruction ordinance helps the City consider the impact of reestablishing areas proven to be susceptible to a high-risk from a natural or urban hazard. The Ordinance also facilitates rebuilding, in certain cases, by defining conditions when permits can be waived if redevelopment is safe and beneficial to the City.

Emergency Evacuation Routes

Hawthorne Boulevard, *Crenshaw Boulevard*, and *Palos Verdes Drive East* are the designated emergency evacuation routes in the City. Los Angeles County Public Works has prioritized these routes for debris clearance and road repairs in the event they are damaged during a major earthquake or other natural disaster. *Indian Peak Road*, *Palos Verdes Drive North*, and *Silver Spur Road* are disaster routes proposed to augment County routes for City-specific emergency planning purposes. Actions warranted along such routes, single access ways to neighborhoods, and other routes where emergency access could be threatened include:

- Implementation of mitigation measures that prevent earthquake induced slope failures from blocking roads;

- Improvement of streets of inadequate width or inadequate drainage that can hinder the mobilization of fire equipment and other emergency vehicles; and

- Development of specific plans for traffic control contingencies and evacuation of high occupancy and immobile populations. The County Fire Department, for instance, has indicated that response times are appreciably reduced during peak traffic along Palos Verdes Drive North.

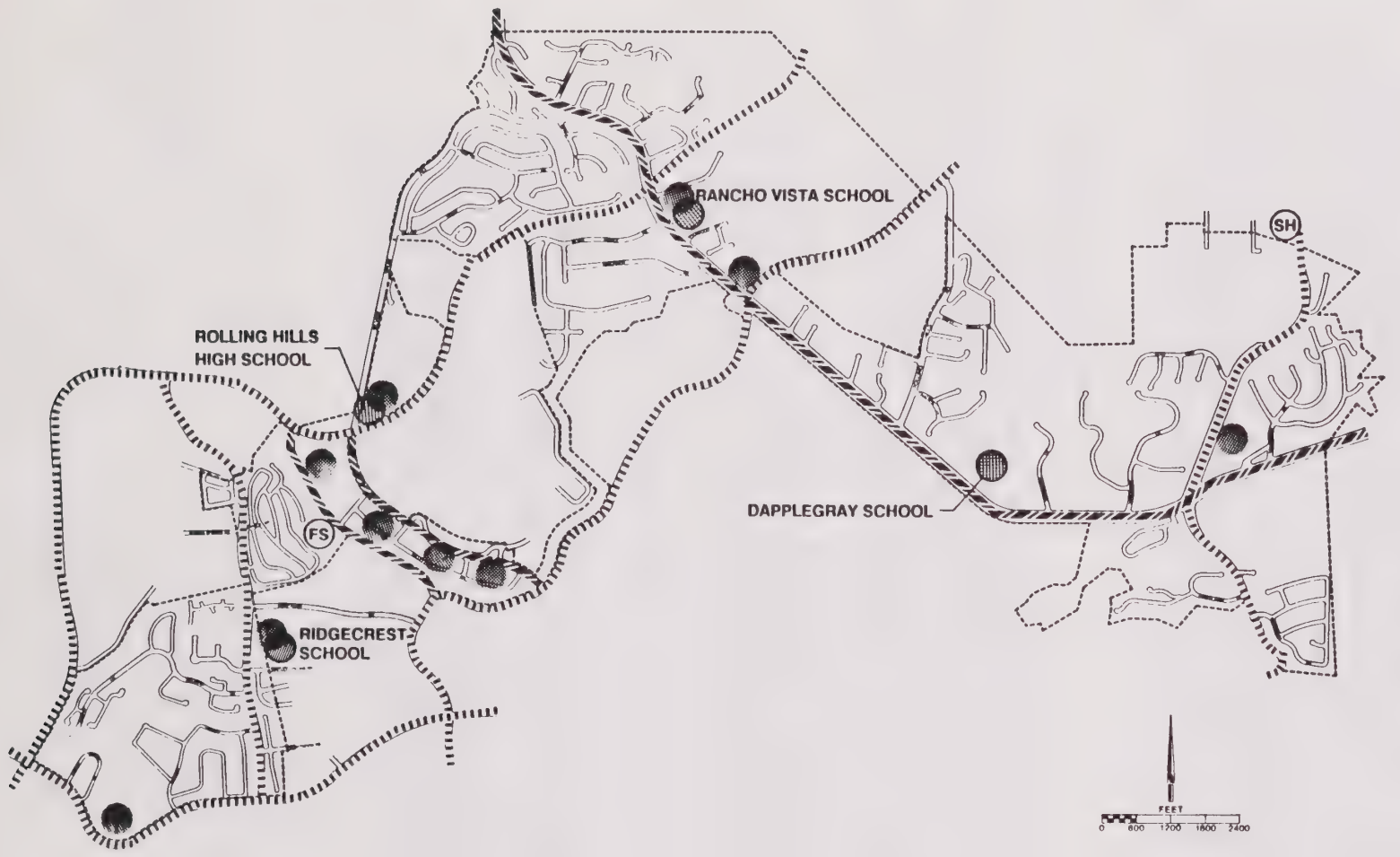
In addition, these roadways are important routes for police and fire vehicles responding to emergency calls in the city. Disaster routes function as primary thoroughfares for movement of emergency vehicles (Fire, Sheriff, heavy equipment, etc.). The selection of evacuation routes, on the other hand, depends largely on the particular situation, i.e., the nature and location of the hazard and the occupancies that need to be evacuated. For evacuation or emergency egress to neighborhoods with only a single access, the single access can become the critical route. Disaster routes and evacuation routes are similar in that plans must be made for traffic control during rush hour or cleanup of debris off of roads. However, disaster routes, by design, are in close proximity to most critical facilities, such as fire stations, schools, and high occupancy buildings. This allows the development of specific emergency plans along County-designated routes, as well as Palos Verdes Drive North, Silver Spur Road and Indian Peak Road.

The direction of travel on these roadways and any restrictions to vehicular movement will depend largely on the nature, location, and spatial characteristics of the event leading to the evacuation. In all cases, facilities with immobile populations, such as day care centers or nursing homes, or residences with the handicapped should be pre-identified. If evacuation is required during the daytime, provisions must be made for the high occupancy businesses in the Silver Spur commercial district, including temporary shelter. The Public Safety Background Report identifies some facilities in the City that have already been identified by the County Fire Department as requiring special needs in a disaster.

Emergency Shelters

The emergency shelters and reception areas are also indicated in Exhibit 8-2. Emergency shelters are assigned to provide short-term shelter for persons stranded in the city of left homeless in the event of a disaster. These shelters may also be used to dispense supplies, serve as first aid stations, and serve as public information centers. Reception centers are gathering/collecting areas where information, first aid, and supplies are dispensed.

A large department store located in the Silver Spur Shopping Complex, has been the sole emergency shelter in the City for years, primarily for protection from a nuclear blast. Temporary shelters for evacuated residents or non-residents displaced by a major earthquake disaster demands a different type of facility. Temporary shelters need to be structurally sound, if indoors, or located in or adjacent to an open space, such as a park or school. The temporary shelters shown on Exhibit 8-2 are preliminary; they should be reviewed and formally incorporated into the City's Multi-Hazard Functional Plan. They include:



DAVID EVANS AND ASSOCIATES, INC.

DISASTER PREPAREDNESS AND RESPONSE PLANNING

Exhibit 8-2

- Rolling Hills High School
- Rancho Vista Elementary School
- Dapplegray Intermediate School (presently unoccupied)

County Public Social Services and the American Red Cross may have additional choices. After a major earthquake, open spaces are valuable because tents or mobile homes may be used to temporarily house the homeless or displaced. Shelters are often operated by the American Red Cross, and also serve as first aid stations, public information centers, and communications centers. Another important function is to provide a reception area to reunite school children with their parents. Ridgecrest Intermediate School, located at the corner of Crestridge and Highridge Roads in the City of Rancho Palos Verdes, is a County-designated emergency shelter available to residents of the southern portion of Rolling Hills Estates.

Earthquake Emergency Preparedness

The potential for earthquakes represent the most significant risk to the City. As indicated in Section 8.4 of this element, there is a high probability that a major damaging earthquake will impact the area sometime in the next several decades. In recognition of this risk, a comprehensive Multi-functional Hazards Management Plan has been prepared indicating actions that will need to be taken by City staff and specific areas of responsibility.

The General Plan's Public Safety Element is not intended to supplant or replace existing emergency plans or programs. The focus of this Element is to establish policies with regard to public safety, identify constraints and hazards that need to be considered in future planning, and to articulate specific standards that should be maintained or strived for.

Key elements of this program will involve the following:

- The creation of a staff position to serve as an Emergency Services Coordinator. This position may be filled by an existing member of City staff.
- Form an Emergency Services Committee consisting of city staff and residents which will direct emergency operations in the event of a major disaster. This group will cooperate with the County Fire and Sheriff's Department if county agencies are able to handle the emergency.

- A catalogue of trained personnel for example, doctors, nurses, medics, heavy equipment operators living or working in the City will be prepared and updated on a periodic basis. A listing of equipment (bulldozers, trucks, etc.) located in the City will also be compiled.

- Members of the Traffic and Safety Committee will become familiarized with the multi-functional Hazards Management Plan. This group will prepare a working "action plan" to ensure every member clearly understands assigned responsibilities.

- The Traffic and Safety Committee will organize the formation of a volunteer search and rescue group to assist in future emergency operations.

- The City will publish pamphlets and provide information on the public cable access channel outlining procedures to follow in the event of a major disaster.

The Public Safety Element also serves the following functions:

- Provides an accurate and up-to-date assessment of natural and man-made hazards in the City, including, but not limited to, earthquakes, landslides, fire, flood, dam inundation, and hazardous materials accidents;

- Provides a framework by which safety considerations are introduced into the land use planning process;

- Strengthens the City's existing municipal codes, and their project review and permitting processes, to identify and mitigate hazards for new development;

- Provides policies directed at identifying and reducing hazards in existing development; and

- Strengthens earthquake, flood, fire and hazardous materials preparedness planning and post-disaster reconstruction policies particular to Rolling Hills Estates.

The Public Safety Element is primarily designed to develop short-term and long-term actions to reduce the scope of a disaster, thereby lessening its impact on the City. The Multi-Hazard Functional Plan provides a logistical framework for governmental response.

However, the Element recognizes that the public must be involved in the preparedness process to reduce risk further, especially in the event of a damaging earthquake.

The following is a list of tasks that the individual/individuals at the home or office should take to lessen the overall impact of a major earthquake.

Before an Earthquake:

- Remove or correct interior nonstructural hazards, such as top-heavy bookcases and storage cabinets, water heaters and other appliances. Anchor furniture and water heaters against the wall and replace gas-fired appliances with flexible connections.

- Set aside a supply of emergency food and water, and obtain first aid materials, a gas shut-off wrench, fire extinguisher, and battery-powered radio. Identify neighbors with first aid training and check for an emergency supply of medication for all members of the family, especially the children, handicapped, and elderly.

- Practice taking cover. This exercise will make people aware of the safest places during an earthquake, such as under a desk, table, bed or strong doorway. The maximum duration of severe shaking from a major earthquake expected to impact the City of Rolling Hills Estates is roughly 30 seconds.

- Practice exiting. Walk the possible escape routes from your house or office and plan to avoid light fixtures, masonry chimneys, unsupported walls and other overhead hazards. Power for elevators and escalators may fail in the Silver Spur Shopping Complex and other high-occupancy facilities, so be aware of alternate exits. Do not panic or run; crowded exits should be evacuated in an orderly manner to avoid additional injuries in a rush for the door. Emergency loud speaker systems may give instructions.

- Practice turning off electricity and water and know how to turn off gas at the street main at your house. Do not practice gas shut-off because for safety reasons, only the utility company should turn it back on. Be sure anyone in the household can locate main switches and valves.

- Review the responsibilities of each family member after an earthquake. Plans for picking up children from schools, day-care centers, or other facilities with dependents should be regularly checked and reviewed. Have the phone

number available of the person outside of the area for management of family messages.

- Contact City and neighbors about forming a co-op self-help group.

After an Earthquake:

- Check for injuries in your family and neighborhood.
- Extinguish small fires and check for additional fire hazards, such as cracked walls, roof lines and attics, and other physical signs of structural damage that can cause a malfunction in the electrical wiring.
- Check for the smell of leaking gas, and if detected, shut off gas at the gas meter. Unanchored gas heaters or gas-fired hot water heaters may experience damage to valves and service connections.
- Shut off electrical power if there is damage to the wiring or there is a gas leak. The main switch is usually located in or next to the main fuse or circuit breaker box.
- Clean up flammable liquids, medicines, and other harmful substances.
- Check for structural and nonstructural damage, such as cracked chimneys, fallen power lines, and other objects that may become unstable and fall during an aftershock.
- Try not to use water in case there is drop in water pressure for firefighting purposes (fire flow). Toilets should not be flushed until both incoming water lines and outgoing sewer lines have been checked to see if they are open.
- Try not to use the phone unless it is a genuine emergency. Emergencies, damage report alerts, and other information can be obtained by turning on your radio.
- Report serious injuries and significant damage to a nearby City emergency reception center.

Development Guidelines

Technical expertise in reviewing and enforcing the Building Code and Fire Code for the City of Rolling Hills Estates is provided by the County of Los Angeles. The codes establish site-specific investigation requirements, construction standards, and project inspection procedures to ensure that development does not pose a threat to the health, safety and welfare of the public. The County Building Code, adapted from the Uniform Building and Fire Codes every three years, also contains base line minimum standards to guard against unsafe development. As discussed in the background report, investigation findings and other project variables may modify the implementation of a particular standard. Examples of County minimum standards include:

- Grading standards: minimum slope angles of 1:5 (slope ratio - rise over run) for cut slopes and 2:1 for fill slopes.

- Fire access and fire flow requirements: minimum 20 foot width is required for private access roads; minimum fire flow of 750 to 1250 gallons per minute (gpm) is required for single-family residential homes.

Additional guidelines and standards can be introduced through the City's Safety Element and Municipal Codes. Zoning ordinances and subdivision regulations also support regulatory codes, and safety is protected as the City carries out its responsibilities under the California Environmental Quality Act (CEQA). CEQA requires that environmental constraints be considered prior to approval of significant projects.

Special development regulations reinforce and augment existing code standards by raising the level of hazard conscious project design and hazard mitigation engineering. Special development regulations include additional geologic/geotechnical investigation and construction standards. Fault and liquefaction investigations are required in the County Building Code, however, it is in the City's best interest to emphasize the level of investigation and protection. Some standards may apply to only critical facilities, such as detailed seismic analyses in high risk areas. Special construction standards may include reinforced foundations in areas of potential ground failure. Avoidance of the hazard may be appropriate in some cases where engineering methods cannot mitigate the hazards, such as is the case where active fault traces are identified during project investigation. Special minimum setbacks away from active faults can be defined for structures, lifelines, or critical facilities planned on or traversing the project site.

The General Plan establishes the following grading guidelines for future development:

- All grading work should be in conformance with the provisions of the City's grading ordinance and Chapter 70 of the Uniform Building Code.
- Grading activities should strive to minimize adverse impacts of the natural topography and environment.
- Approved protective measures and temporary drainage provisions must be used to protect adjoining properties during grading.
- The grading contractor shall provide for compaction tests and reports by a soils engineer certifying compliance with the above-mentioned Chapter 70.
- Import materials shall be tested and certified prior to placement.
- No work whatsoever shall be started without first notifying the grading inspector and soils engineer.
- The location of dumping excess soil shall be approved by the grading inspector prior to the start of excavation.
- Any damage caused during the grading operation must be corrected prior to the final approval of the grading operation.
- All recommendations of the soils engineering report and all subsequent reports, addenda, and recommendations, etc., shall be considered a part of this grading plan and shall be complied with.
- An erosion control plan shall be submitted to the City Engineer prior to start of the rainy season and all erosion control devices shall be provided and maintained during rainy season between October 15 and April 15 of the following year and shall be in place at the end of each day's work.
- All on-site improvement shall be in accordance with the "Standard Specifics for Public Works Construction" (Latest Edition).

- Minimum on-site structural pavement section shall be 2 inch A.C. on 4 inch aggregate base. Actual section shall be determined by field soil test and to be approved by the City Engineer.

- Maximum slopes shall be 2:1 for cut and fill unless otherwise directed.

- Fills are to be compacted to not less than 90% of maximum density as determined by A.S.T.M. soil compact test D1557-70 and certified by soils engineer, fill layer is not to exceed 6".

- No fills shall be placed until vegetation has been removed and sub-grade prepared per Chapter 70 and applicable ordinances and approved by the grading inspector.

- No rock or lumps with greater than 6" diameter shall be placed in the fill unless such placement is approved by the soils engineer and grading inspector.

- Grading activities should strive to maintain natural topographic conditions.

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INTRODUCTION

The Public Safety Element Background Report discusses safety issues in the City including earthquake, geological, fire, flooding, and hazards. The identification of hazardous conditions in the City provide a better perspective on the programs that are necessary to promote public health and safety.

Many of the safety issues in the City of Rolling Hills Estates are directly related to southern California's seismic setting. Other issues are particular to the Peninsula's geologic and topographic characteristics. Southern California is located in a seismically-active region, experiencing on average, an earthquake of Magnitude 4 or greater every four years. The Los Angeles Basin, in particular, is traversed by many active faults, associated with the boundary between the North American and Pacific plates. Major faults include the San Andreas, Newport-Inglewood, and Palos Verdes faults. The basin is also subject to compressive forces responsible for many east-west trending folds, including the Palos Verdes Hills, the Puente Hills, and the chain of hills and mesas that stretch along the length of the Newport-Inglewood fault.

The climate, topography, and local geology are major factors in fire and flood hazards. native soils and the local climate support certain kinds of chaparral vegetation which contain high concentrations of volatile oils and are extremely flammable. Areas where stands of chaparral are especially dense, such as along canyon bottoms, are highly susceptible to brush fires. Because the local topography contains ridges and canyons, the primary flood hazards in the City is primarily along canyon bottoms.

SEISMIC HAZARDS

Earthquakes occur frequently in southern California because many faults are present due to the complex geology associated with the convergence of the North American and Pacific plates. The better know seismically active faults in southern California are shown on Exhibit 8-3. The Palos Verdes Peninsula lies at the juncture of many of these fault systems.

Faults are classified as inactive, active, or potentially active. Active faults show proven displacement of the ground surface within the last 11,000 years (Holocene); and Potentially Active faults show evidence of movement within the last two million years (modified to 750,000 years by USGS, 1985 and adopted by Los Angeles County, 1990). This definition is designed as a yardstick for surface rupture potential, and is used to prevent development from being constructed directly on an "active" fault trace. In general, potentially active faults

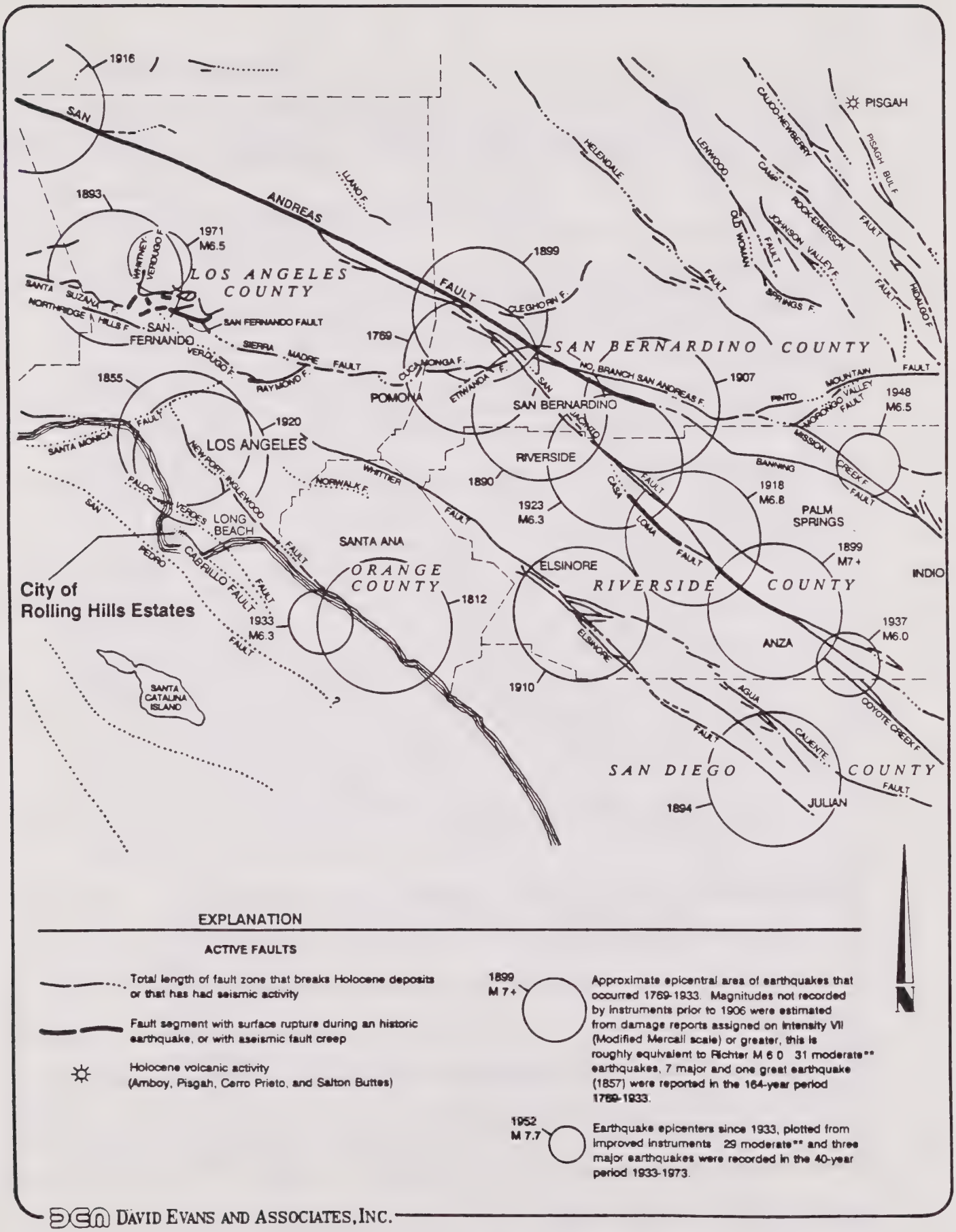
are, relative to active faults, less likely to be the origin of a damaging earthquake. However, there is a gradation of seismic risk posed by potentially active and active faults. For example, of the "active" faults closest to the City, the Newport-Inglewood, Palos Verdes, and Cabrillo faults pose successively decreasing degrees of seismic risk.

Table 8-1 lists the likelihood of a major earthquake on active and potentially active faults in the region and the degree of intensity and potential impact on the City. The "low likelihood" faults may have a greater impact on the City due to their proximity. Earthquake intensities are reflected in a modified Mercalli scale which is described in Table 8-2.

TABLE 8-1
RELATIVE LIKELIHOOD AND IMPACT OF SELECTED MAJOR EARTHQUAKES ON THE CITY OF ROLLING HILLS ESTATES

Fault Name	Occurrence	Max. Cred. [a]	Intensity [b]
San Andreas (Mojave Segment)	High	7.5	VII
San Andreas (San Bernardino Mountain Segment)	High	7.5	VII
San Fernando	Moderate	6.5	V-VI
San Andreas (Carrizo Segment)	Moderate	8.0	VII-VIII
Elsinore	Moderate	7.1	VI-VII
Whittier	Moderate	7.3	VII-VIII
Newport Inglewood	Low	6.9	VII-VIII
Offshore Newport Inglewood	Low	6.8	VI
Palos Verdes	Low	7.0	IX-X
Malibu Coast	Low	6.9	VI-VII
Cabrillo	Low	6.6	VII-VIII
Santa Monica	Low	6.7	VI-VII
Redondo Canyon	Low	6.4	VI-VII

a) Maximum Credible Earthquake each fault is predicted capable of generating, and the likelihood of such an earthquake occurring within the next 100 years. The probabilities were ranked as high, moderate and low as follows: high- greater than 50%, moderate- 10 to 50%, low- less than 10%.
b) Intensity is based on the Modified Mercalli Intensity which is defined in Table 8-2.



EXPLANATION

ACTIVE FAULTS

Total length of fault zone that breaks Holocene deposits or that has had seismic activity

Fault segment with surface rupture during an historic earthquake, or with aseismic fault creep

Holocene volcanic activity (Amboy, Pisgah, Cerro Prieto, and Salton Buttes)

1899 M 7+

Approximate epicentral area of earthquakes that occurred 1769-1933. Magnitudes not recorded by instruments prior to 1906 were estimated from damage reports assigned on intensity VII (Modified Mercalli scale) or greater, this is roughly equivalent to Richter M 6 0 31 moderate** earthquakes, 7 major and one great earthquake (1857) were reported in the 164-year period 1769-1933.

1952 M 7.7

Earthquake epicenters since 1933, plotted from improved instruments 29 moderate** and three major earthquakes were recorded in the 40-year period 1933-1973.

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MAJOR FAULTS IN SOUTHERN CALIFORNIA

Exhibit 8-3

TABLE 8-2
MODIFIED MERCALLI INTENSITY SCALE*

I Tremor not felt.

II Tremor felt by persons at rest or in upper floors of a building.

III Tremor felt indoors. Vibrations feel like a light truck passing by; may not be recognized as an earthquake. Hanging objects swing.

IV Hanging objects swing. Vibrations feel like a heavy truck passing by, and the jolt feels like a heavy ball striking the walls. Standing cars rock. Windows, dishes and doors rattle. Glasses clink and crockery clashes. Wooden walls and frames crack in the upper range of scale IV.

V Earth felt outdoors, and its direction can be estimated. Liquids are disturbed, some spilled. Small unstable objects are displaced or upset. Doors swing, closing and opening. Shutters and pictures move. Pendulum clocks stop, start, or change rate.

VI Earthquake felt by everyone. Windows, dishes, and glassware are broken. Knick-knacks and books fall off shelves; pictures fall off walls. Furniture moves or is overturned. Weak plaster and masonry D are cracked.

VII Steering of motor cars is affected. Partial collapse of masonry C structures. Some damage to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting and falling of chimneys, factory stacks, monuments, towers, and elevated tanks. Frame structures, if not bolted to foundation, shift. Loose panel walls are thrown out; decayed pilings brake off.

VIII Damage slight in specially designed structures though considerable in unreinforced buildings.

IX Masonry D structures destroyed, masonry C heavily damaged, sometimes completely collapsed. General damage to foundations. Frame structures, if not bolted, shift off their foundations. Underground pipes are broken. Conspicuous cracks in the ground.

X Most masonry and frame structures are destroyed. Most foundations destroyed. Some well-built wooden structures and bridges are destroyed. Serious damage to dams, dikes, and embankments. Underground pipelines are seriously damaged. Large landslides.

XI Underground pipelines completely out of service. Many and widespread disturbances of the ground, including broad fissures, earth slumps and land slips in soft, wet ground. Sea-waves (tidal waves or tsunami) of significant magnitude. Severe damage to wood-frame structures, especially if near to the shock center.

XII Damage is nearly total. Lines of sight and level are distorted. Objects are thrown into the air. Great and varied disturbance of the ground, including numerous shearing cracks, landslides, large rockfalls, and numerous and widespread slumping of river banks.

Masonry A: Good workmanship, mortar and design. Reinforced, especially laterally, and bound together with steel, concrete, etc. Designed to resist lateral forces.

Masonry B: Good workmanship and mortar. Reinforced, but not designed to resist lateral forces.

Masonry C: Ordinary workmanship and mortar. Not reinforced or designed to resist horizontal forces.

Masonry D: Weak materials, such as adobe; poor mortar. Low standards of workmanship; weak horizontally.

These masonry types are not to be confused with the conventional Class A, B, and C construction types.

* Modified and rewritten after Richter (1958) and Toppozada and others (1988) using Rossi-Forel's Intensity Scale.

Groundshaking from an earthquake can result in liquefaction, landslides, or structural damage. The intensity of seismic ground shaking at any given location is influenced by the magnitude of the earthquake, the distance of the epicenter to the planning area, and local geologic and topographic conditions. The amount of damage generally depends on the size, shape, age, and engineering characteristics of affected structures. Development in the City of Rolling Hills Estates is built to relatively modern standards, and the single-story, wood-frame construction of the residential developments, although not immune to structural damage, is notably resilient to earthquake shaking.

Detectable ground shaking in Rolling Hills Estates could be caused by a number of faults in the area (refer to Table 8-1). However, as indicated previously, only a number of the faults have the potential for causing strong ground shaking in the City. The Palos Verdes, Cabrillo, Redondo Canyon, Newport-Inglewood, Santa Monica-Malibu Coast, Whittier and Torrance-Wilmington fault systems are most likely to cause high ground accelerations in the City.

The San Andreas fault has the highest probability of generating a maximum credible earthquake in California within the next 30 years. The anticipated "big one" is thought to be capable of generating peak horizontal ground accelerations of 0.9g (g is the acceleration of gravity, equal to 32 feet per second squared) in Rolling Hills Estates, with seismic intensity values of VII (refer to Table 8-2). Such an event would have an expected duration of 35 to 50 seconds. Several factors affect earthquake impacts on structures, making the hazard of ground shaking difficult to predict. In general, long-period seismic waves (characteristic of earthquakes that occur 9 miles or more from the planning area) damage preferentially long-period structures such as high-rise buildings, bridges and freeway overpasses. The San Andreas fault is 35 miles from Rolling Hills Estates at its closest point. The City does not have any major long-period buildings and infrastructure, thus, a "big one" on the San Andreas is not likely to cause any significant structural damage in the City.

The *Palos Verdes fault* has, in the last few years, been considered as active, based on late Pleistocene and Holocene age displacements that have been interpreted along offshore segments of the fault in the San Pedro shelf (Darrow and Fischer, 1983). The fault is considered to be capable of generating a maximum credible earthquake of Magnitude 7.0 that would cause peak horizontal ground accelerations in Rolling Hills Estates and seismic intensities in the IX to X range.

The proximity of the Palos Verdes fault to the City would result in greater damage than that anticipated from an earthquake on the San Andreas fault. The short period seismic waves generated by nearby earthquakes interact preferentially with low-rise building and other

structures such as electric substations. With most buildings in the City being low- to mid-rise, a moderate to strong earthquake on the Palos Verdes fault will have more impact on the City than a stronger earthquake on a more distant fault. Ground shaking can also be focused on ridge tops, as evidenced in the 1989 Loma Prieta Earthquake by fallen trees, displaced boulders, and damaged structures located on the crest of hills and other topographic highs (EERI, 1989).

The nearest segment of the *Newport-Inglewood fault* is located approximately 9 miles east of Rolling Hills Estates. The 1933 Long Beach Earthquake, attributed to the Newport-Inglewood fault, generated Modified Mercalli intensities of about VII in the Palos Verdes Peninsula (Wood, 1933 in Toppozada et al., 1988). A maximum credible earthquake of Magnitude 6.8 on the Newport-Inglewood fault has the potential of generating horizontal peak ground accelerations of about 0.2 to 0.3g in Rolling Hills Estates. Ground shaking could last approximately 22 seconds, with seismic intensity values in the VII to VIII range. This earthquake would be particularly damaging to the low-rise, single-family structures in the City.

The *Cabrillo fault* is classified as active, also based on offset Holocene (younger than 11,000 years) sediments along its offshore segments, and on scattered micro-earthquakes. A maximum credible earthquake on this fault would generate peak horizontal ground accelerations of up to 0.5 to 0.6g in the City.

The *Redondo Canyon fault*, located offshore and extending from just north of the Palos Verdes Peninsula and into Redondo Canyon, is approximately 2.5 miles from Rolling Hills Estates at its closest point. A maximum credible earthquake on this fault (estimated Magnitude 6.4) could generate peak horizontal accelerations of about 0.45g in the City for approximately 18 seconds. This earthquake would also impact low-rise buildings preferentially.

The *Santa Monica-Malibu Coast Fault System* is an east-west trending fault system along the southern margin of the western Santa Monica Mountains and into Santa Monica Bay. Although there has been very little seismic activity along this fault system, the Malibu Coast fault segment has been characterized as active by Los Angeles County, based on displaced colluvial soils estimated to be about five thousand years old (Los Angeles County, 1990). The Santa Monica fault segment is considered to be potentially active. A maximum credible earthquake on the Santa Monica-Malibu Coast fault is estimated to result in peak horizontal ground accelerations of 0.11 to 0.14g in Rolling Hills Estates, with an estimated duration of approximately 21 seconds.

Maximum credible earthquakes on other faults further away from the City would generate horizontal peak ground accelerations ranging from .01 to .14g, with an average duration of approximately 20 seconds. The *Whittier fault*, which at its closest point is 23 miles from Rolling Hills Estates, has the potential of generating peak horizontal ground accelerations of 0.14g in the City. The duration of strong ground shaking associated with such a maximum credible earthquake is estimated at 31 seconds; seismic intensities in Rolling Hills Estates may be in the VIII range.

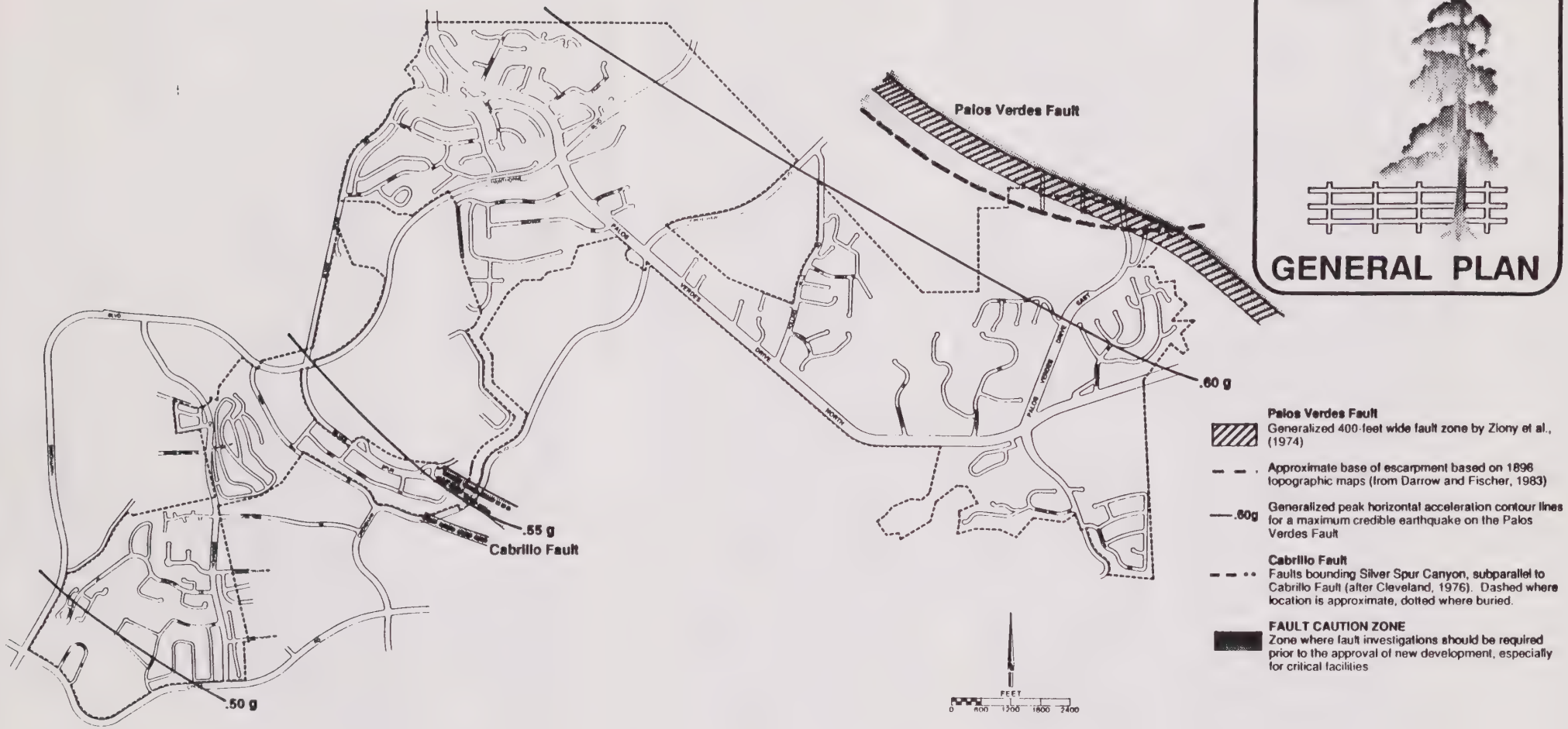
The *Torrance-Wilmington fault* is a newly postulated, blind thrust fault and fold system occurring at depth under the Palos Verdes Peninsula. (Blind thrust faults are low-angle or low-lying faults occurring generally 5 to 15 kilometers below the ground surface which have no surface manifestation.) These concealed faults have been recognized as capable of generating strong, damaging earthquakes since 1987, when a similar blind thrust caused the Whittier Narrows earthquake of Magnitude 5.9. Although the location of the Torrance-Wilmington Fault System is not well defined, the fault and fold belt has been divided into three segments. Hauksson (1990) estimates that if one of these segments ruptures, an earthquake of Magnitude 5 to 7.5, would occur. If two or more segments rupture simultaneously, an earthquake of Magnitude greater than 7.8, would occur.

Fault Rupture Hazard

Fault rupture hazards are classified by the youngest geologic layer on the fault offsets. Surface fault ruptures, with consequent damage to structures directly overlying the trace of a fault, has led to the enactment of the *Alquist-Priolo Special Studies Zone Act (APSSZ)* of 1972. Evidence of fault displaced sediments that are less than 11,000 years old is used as a yardstick to gauge the surface rupture potential of faults. The objective of fault investigations within an *APSSZ* is to define the trace of the fault so that setbacks from the fault can be established. No Special Studies Zones have been designated within the City of Rolling Hills Estates. However, the *APSSZ* Act allows individual jurisdictions to create special studies zones around faults not yet recognized by the State as active.

The Palos Verdes fault, which extends across the northeastern corner of Rolling Hills Estates is considered active, but has yet to be characterized by the State with the Alquist Priolo Act (Exhibit 8-4). The proposed active designation is based on displaced Holocene sediments which were interpreted from geophysical data collected along the offshore segments of the fault in the San Pedro shelf.

The onshore segment of the Palos Verdes fault has generally been located along the north escarpment flanking the Palos Verdes Hills. A more precise location of the fault, however,



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SEISMIC HAZARDS IN ROLLING HILLS ESTATES

Exhibit 8-4

has eluded geologists because the trace of the fault has been concealed by urban development, and by thick colluvial deposits (Darrow and Fischer, 1983). The lack of surface evidence of lateral movement on the Palos Verdes fault suggests to Hauksson (1990) that this fault is either accommodating very little of the stress in the Los Angeles Basin, or that moderate to large-sized earthquakes on the fault rarely rupture the surface. Although surface-verging splays of the Wilmington-Torrance thrust belt may be within a few miles of the surface, the surface rupture potential of this fault is probably minimal. Rather, most stress may be regionally distributed through general uplift of the Palos Verdes Hills.

The onshore segment of the Cabrillo fault is hidden by landslides, complicating attempts to confirm its location and evaluate its onshore activity. Inferred traces of the Cabrillo fault, together with normal faults subparallel to the main fault, extend into the eastern boundary of the City (Cleveland, 1976). These faults, which bound the Silver Spur graben (down-dropped valley), have been attributed to either tectonic faulting, faulting associated with the postulated Silver Spur landslide complex, or to a combination of tectonic and landslide processes (Envicom, 1975; Robert Stone & Associates, 1985).

Ground fissuring has been documented on hillside areas in recent earthquakes. Ground fissures triggered by the 1989 Loma Prieta earthquake appear to have occurred along previously mapped secondary faults to the San Andreas fault, or were associated with apparent fault-related topography (EERI, 1989). Displacement, generally along the fault line with some components of lateral and vertical movement, appeared to occur mostly along high-angle bedding planes in bedrock of similar age and characteristics as the siltstones underlying the Palos Verdes Peninsula. The surface rupture potential of the onshore Palos Verdes or Cabrillo fault segments is credible, given the geologic and geophysical evidence from offshore characteristics.

Earthquake-Induced Ground Failure

Secondary earthquake hazards such as liquefaction, lateral spreading, dynamic settlement and landsliding are generally associated with relatively high intensities of ground shaking. Liquefaction, lateral spreading and dynamic settlement are associated with shallow ground water conditions, and loose, sandy soils or alluvium.

Liquefaction occurs when soil densifies and settles as a result of the seismic vibrations and resultant extrusion of water-soil slurries. This, in turn, may cause structural foundations to fail, settle below the original grade, and cause overturning of the structure. Most of Rolling Hills Estates is underlain by consolidated bedrock and is not susceptible to liquefaction. The Chandler quarry and some canyons, however, have been infilled with uncompacted artificial or hydraulic fill (refer to Exhibit 8-5). These fills may settle during strong ground

shaking. In areas where perched ground water conditions exist within these fills, liquefaction can occur. Site-specific geotechnical studies are the only practical and reliable way of determining the liquefaction potential of specific sites at risk.

Earthquake induced *landsliding* and *rockfalls* are common in areas where steep slopes expose out-of-slope bedding, or where the bedrock is intensely jointed and fractured. Soil slips, or shallow surficial slides, may also occur. These slides may be widespread and could impede the flow of emergency traffic along evacuation routes. In Rolling Hills Estates, out-of-slope road cuts that may pose a rockfall or landslide threat as a result of strong seismic shaking include Crenshaw Boulevard along Agua Negra Canyon, Palos Verdes Drive between George F Canyon to the east and Silver Spur Road to the west, and some sections of Hawthorne Boulevard. Extensive bedrock folding in the peninsula can also result in localized out-of-slope cuts in other areas. Exhibit 8-5 indicates those areas of the City where potentially active landslides are present.

Potential Impacts

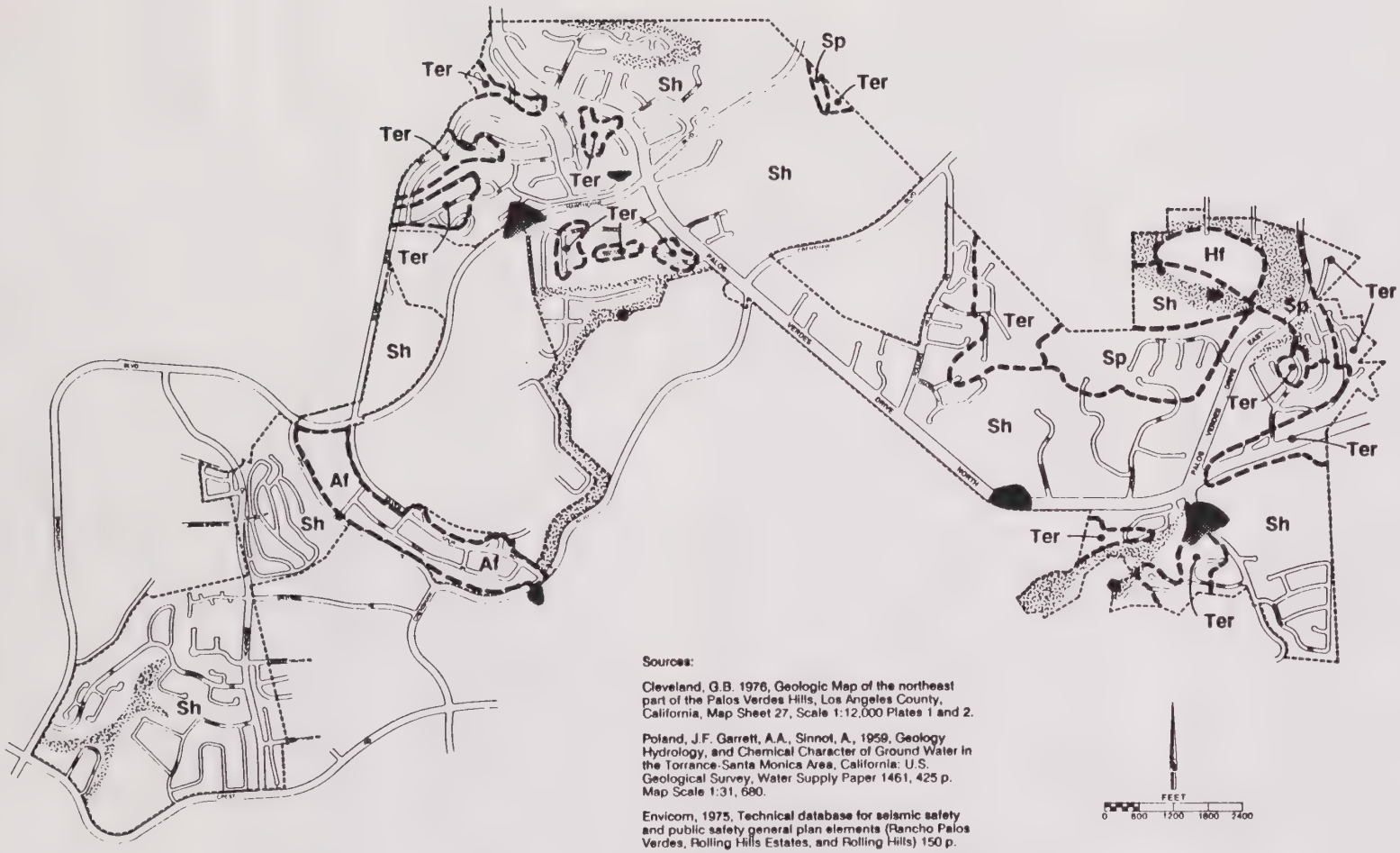
Injuries and property damage (structural and nonstructural damage to buildings) from a major earthquake in the region will be due to strong ground motion. Rolling Hills Estates is developed with low and medium density residential areas. Other areas are devoted to low-rise commercial development (Peninsula Center), high-density residential development (condominiums), and isolated research, education and public facilities. Buildings less than 3 stories are likely to be damaged by a nearby earthquake, such as one on the Palos Verdes or Newport-Inglewood fault.

Residential Developments: The wood-frame construction used in residential and commercial developments in the City generally performs well during earthquakes. However, a trend in wood-frame construction in recent years, in particular in housing construction, has been the split level and irregular floor plan. Earthquake intensities of VIII can cause damage to the foundation and wall elements of irregularly shaped structures. Split level houses are susceptible to damage caused by the weakness of the pole platforms or pole structures used to support the structure. Vertical changes in strength are termed "soft-stories" and are also manifested in other types of construction. Single-family residences built before the 1952 Building Code was implemented are more likely to slip off their foundations as a result of strong ground motion associated with near-field earthquakes.

Commercial and Industrial Developments: Buildings using tilt-up concrete walls are found in some commercial developments. Roof collapse has been observed in

City of Rolling Hills Estates

GENERAL PLAN



LEGEND

- ------ CITY BOUNDARY
- Af — Major Artificial Fill
- Hf — Hydraulic Fill
- Ter — Terrace Deposits - Sand and Gravel
- Sp — San Pedro Fm. - Sand and Gravel
- Sh — Monterey Fm. - Shales and Siltstone
- Potentially Active Landslide (may be mitigated by subsequent grading)
- Major Canyon Slopes - Slope gradient > 40%

Note: Geologic unit contacts are approximate.

Sources:

Cleveland, G.B. 1976, Geologic Map of the northeast part of the Palos Verdes Hills, Los Angeles County, California, Map Sheet 27, Scale 1:12,000 Plates 1 and 2.

Poland, J.F. Garrett, A.A., Sinnot, A., 1959, Geology Hydrology, and Chemical Character of Ground Water in the Torrance-Santa Monica Area, California: U.S. Geological Survey, Water Supply Paper 1461, 425 p. Map Scale 1:31, 680.

Envicom, 1975, Technical database for seismic safety and public safety general plan elements (Rancho Palos Verdes, Rolling Hills Estates, and Rolling Hills) 150 p.

Aerial Photographs, 1989, Color-Infrared, City of Rolling Hills Estates 1" = 800'

Leighton and Associates, 1981, Soils and Geologic Review of Reuse Analysis, Chandler Sand Quarry, Rolling Hills Estates.

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GEOLOGIC HAZARDS AND CONSTRAINTS

Exhibit 8-5

commercial buildings built before 1971 and using this type of construction. Concrete and steel-framed buildings are more earthquake resistant and should be encouraged. Unusual architectural features such as long spans, minimal amount of interior shear walls, or irregular shapes may be found in commercial development. These features can result in significant damage or collapse during an earthquake.

Critical Facilities: Critical facilities are structures that must remain operational after an earthquake. They include hospitals, fire and police stations, emergency shelters, evacuation centers and communication centers. *High-occupancy facilities* have the potential for a large number of casualties or crowd control problems. This category includes the Peninsula Center and large multifamily residential projects. *Dependent care facilities* house populations with special evacuation considerations, such as pre-schools and schools, group care homes, and nursing and convalescent homes. Facilities that pose unacceptable risks to public safety if severely damaged are also of critical concern.

It is important to ensure that critical facilities designed for human occupancy possess no structural weaknesses that can lead to collapse. The State has jurisdictional responsibility to ensure that public schools, such as Rolling Hills High School and Rancho Vista Elementary School, are adequately constructed to seismic standards (Garrison Act, 1969). The County of Los Angeles 5-Year Earthquake Preparedness Plan has a program to ensure continued operation of County Fire Stations in an earthquake, such as Fire Station 106 located on Indian Peak Road.

Site specific structural evaluation is the only reliable method of determining if there are structural design weaknesses in these structures. The County Fire Department is responsible for safety inspections of high-occupancy residential and commercial facilities. These inspections prevent earthquake-induced hazards, as well as improving day-to-day fire safety.

Nonstructural Hazards: Nonstructural damage is perhaps the largest expected source of injury in an earthquake. Buildings with exterior nonstructural hazards, such as cornices and parapets pose hazards to the public if not properly secured. Toppled furniture, book shelves, and interior equipment and decor pose additional hazards. In structures where continued operation is important (critical facilities), special effort is needed to secure needed equipment and emergency generators to prevent damage.

The City of Rolling Hills Estates is located within Seismic Zone 4 specified in the Uniform Building Code. The County of Los Angeles Department of Public Works reviews all

projects to ensure compliance with the existing and regularly amended seismic design provisions of the Building Code. Seismic design provisions for conventional development, such as residential and commercial development, specify that a building not collapse under seismic loading, therefore structural and nonstructural damage cannot be precluded. It is economically infeasible to design earthquake-resistant structures for conventional development. The key is to enforce seismic design provisions with adequate review and inspection to ensure maximum quality construction and optimum design.

Earthquake damage to wood-frame single-family residential structures from near-field sources will be slight to moderate, and limited to walls thrown out of plum, fallen chimneys, and torsional racking of foundation and wall elements. Slippage of structures off their foundations may be prevalent in houses built before 1952.

Earthquake Emergency Considerations

Medical Care: The nearest hospitals to the City are the Torrance Memorial Hospital and Medical Center located at 3330 West Lomita Boulevard in Torrance; Bay Harbor Hospital at 1437 West Lomita Boulevard in Harbor City; and Kaiser Hospital at 1300 West Seventh Street in San Pedro. A maximum credible earthquake on the Newport-Inglewood, the Palos Verdes or Cabrillo faults, could result in up to a 50 percent loss of beds available to patients (Toppozada et al., 1985).

Fires and Evacuation: Simultaneous evacuation of high-occupancy structures, such as the stores at the Peninsula Center, and the occurrence of earthquake-induced fires in the City will tax the Fire Department's manpower resources. Fire hazards in the City are discussed in detail in subsequent subsections of this report.

Fire Flow: Water pipelines can be damaged by surface rupture, liquefaction, landslides, or high frequency seismic waves if significant vertical or horizontal displacements of the ground occur (NCEER, 1989). Breaks in the water distribution pipelines can result in significant reductions in water pressure that can slow post-earthquake fire suppression efforts.

Utilities: Rolling Hills Estates is supplied with electrical power by the Southern California Edison who operates the Harbor Generating Station, a 474-megawatt natural gas facility located south of Wilmington. High frequency ground motion characteristic of a nearby earthquake and seismic intensities as low as VII can seriously disable the electrical network system (Hayes, 1987; Toppozada et al., 1988). The downtime of electrical facilities is expected to last no longer than three days. Damage to computer switchboards and power loss will impair emergency communications. Communication centers should have back-up

capabilities that rely on battery-powered radio. Damaged natural gas pipelines and connections may result in service disruption, and in some cases, fire.

Transportation: Earthquake-induced landslides may hinder circulation on Crenshaw Boulevard along Agua Negra Canyon, Palos Verdes Drive North between George F. Canyon to the east and Silver Spur Road to the west, and some sections of Hawthorne Boulevard.

Hazardous Materials: The potential for earthquake-induced hazardous materials accidents in adjacent jurisdictions must be addressed in disaster planning scenarios for the City of Rolling Hills Estates. Hazardous materials issues are discussed later.

GEOLOGIC HAZARDS

Geologic hazards and geotechnical constraints found in the City of Rolling Hills Estates are tied to the structural characteristics of the bedrock and the overlying soil mantle. The Palos Verdes Peninsula is predominantly underlain by a sequence of folded sedimentary bedrock. Overlying the bedrock are a series of elevated "beach" terraces, sand and gravel formations created during the emergence of the peninsula landform over the last 1.5 million years. These deposits lend themselves in varying degrees to landsliding, debris and mudflows, settlement, expansive soils, and/or susceptibility to erosion.

Landslides and Slope Instability

The majority of the City is underlain by shale and siltstone units of the Monterey Formation (Altamira Shale; the Valmonte Diatomite and Malaga Mudstone are confined to north of Palos Verdes Drive). These interbedded units have planes of weakness that are conducive to landsliding and slope instability, characteristic of the Palos Verdes Peninsula. Yet active landslides are not numerous in the City, in contrast to other areas of the peninsula where massive landslides, such as the Portuguese Bend and Flying Triangle, pose severe geologic hazards. Nevertheless, small landslides in the canyon areas and one large postulated landslide complex northeast of the Peninsula Center area exist.

Slope modification during grading can render slopes unstable. Slope instability occurs when bedding planes intersect the slope face of either natural slopes or designed cut slopes. The natural orientation of major slopes in the City are along northeast-southwest trending canyons. Bedding is generally inclined to the north on the northerly flanks of the City and inclined to the south on the southerly side. Bedding plane orientations, however, are quite variable throughout the City, indicating out-slope-bedding conditions may occur locally. Site specific investigations are necessary to determine potential slope instability problems at specific sites (tract or parcel size).

Exhibit 8-5 shows the distribution of probable landslides in the City, some of which may have been subsequently verified and stabilized through grading activity. Landslides are considered "potentially active", meaning they could be reactivated in the future, either by excessive rainfall, introduction of artificial water in the slope (landscaping irrigation/broken water or sewage lines), or improper site design or grading practices. Grading activities must consider these geologic constraints as a condition of project approval. The County of Los Angeles Department of Public Works acts as reviewer for the City to ensure all potential geologic problems are addressed.

Silver Spur Landslide Complex. The northwest-southeast trending valley along Silver Spur Road could be a pull-apart scarp within a postulated "Silver Spur Landslide" complex (Envicom, 1975). Robert Stone and Associates (1985) stated that this landslide complex is probably several square miles in area and an ancient analog of the present Portuguese Bend Landslide. Other engineering geologists believe the presence of known or inferred faults trending subparallel to the graben (valley) support a tectonic (fault-related) origin. Indeed, the Silver Spur graben parallels the Cabrillo fault, and small faults are mapped bounding the northern and southern walls of the graben (Cleveland, 1976).

The size and geomorphic expression of the Silver Spur graben (outlined as an area of major artificial fill) implies large-scale extensional faulting and very high fault slip rates; something which is not observed on the Cabrillo fault. If movement along the Cabrillo fault is not associated with origins of the graben feature, a landslide origin best fits the evidence to date. A landslide complex model suggests that a shallow northward-dipping "potentially active" slip surface underlies a major portion of the residential area northeast of the Peninsula Center. Although its location is highly conjectural, the postulated Silver Spur landslide complex could extend as far northeast as Palos Verdes Drive North and at least as far east as Crenshaw Boulevard.

Earthquake-Induced Landsliding. Earthquake ground shaking worsens existing unstable slope conditions. If engineered slopes are designed properly, they will perform well under intense ground shaking. Typical earthquake-induced landslides in bedrock and in terrain similar to Rolling Hills Estates include shallow slumps and slides. These are commonly associated with steep road cuts and natural slopes. The 1989 Loma Prieta Earthquake showed that reactivation of larger, dormant, deep-seated landslides along weak bedding is possible, not dissimilar to the conditions found in the City created by the interbedded Monterey Formation.

Storm-Induced Landsliding and Erosion. Heavy rainfall often triggers surficial sliding (debris flows and mudflows) along the sides of canyons and on steep slopes. The San Pedro Formation is an unconsolidated marine sand deposit found on the northern flank of the City.

This formation is highly susceptible to erosion on the hillsides if they are not properly planted. Current grading codes provide protection against mudflows and erosion, including provisions for planted and maintained slopes, retaining walls, drainage devices, and debris basins. Older developed hillside areas of the City, most notably areas developed before 1963, may not have benefitted from such protection, and consequently, they stand a greater likelihood of experiencing storm damage.

Geotechnical Constraints

One of the most visible geotechnical constraints in the City is the presence of semi-controlled, man-made fills in the northeast portion of the City. Quarry operations have resulted in various types and quantities of fill material within and adjacent to the Chandler property. Hydraulic fills and desilting basins of various sizes and depths occur both on and off site (Leighton and Associates, 1981). The delineation of hydraulic fills in Exhibit 8-4 is approximate in nature, and small pockets may occur outside of the Chandler Quarry site. Hydraulic fills in the area are extremely susceptible to earthquake-induced ground failure.

The Chandler Quarry site is used as a landfill at the eastern and northern flanks of the quarry. Large concrete blocks, asphalt and debris (Class III), and hazardous materials (Class I and II) have been placed in the pit. The primary geotechnical constraint of semi-controlled landfill is settlement, however, ground water contamination is a major concern. The northern half of the quarry, underlain by the San Pedro Formation, is in hydraulic continuity with the groundwater aquifer in the Los Angeles Basin. Hazardous materials issues at the landfill will be discussed in more detail.

Diablo and Altamont soils and various thicknesses of expansive slope wash (colluvium) are found at the top of terraces, and along canyon walls and bottoms. They are characteristically dark clay, with a high shrink-swell potential. Modern soil engineering procedures coupled with present-day foundation designs can effectively mitigate expansive soils, but soil moisture fluctuations should still be avoided.

FLOOD AND INUNDATION HAZARDS

Small-scale flooding occurs when storm drain systems become overburdened during strong winter storms. They can damage property and hinder emergency activities, such as fire department access to fire hydrants or evacuation.

Dam Inundation

The Palos Verdes Reservoir is located near the eastern limit of the City of Rolling Hills Estates. The reservoir is owned by the Metropolitan Water District (MWD). It is an earthen fill dam built in 1939 with a capacity of 1,100 acre-feet. The reservoir supplies water to the California Water Service distribution network in the peninsula. The MWD Safety of Dams Section maintains continuous surveillance of the reservoir, including live-in personnel at the facility. The MWD also monitors piezometers in the embankment to warn of increases in seepage, a critical precursor that can undermine the foundation and threaten the stability of the dam. The piezometers are connected to an automatic alarm system. As required by State law, MWD prepared maps showing the potential flood limits and maintains emergency plans in the remote possibility of dam failure. The potential inundation area is shown in Exhibit 8-6.

The California Division of Safety of Dams reviews MWD reports detailing repairs, maintenance, and monitoring operations at the reservoir and inspects the facility biannually. As of 1991, the facility is in conformance with State safety standards. The site is monitored by strong motion instrumentation and, according to current reports, will be able to withstand a maximum credible earthquake on the Palos Verdes fault (George Barber, 1990, MWD Safety of Dams). Dam failure is not a severe safety threat to the City because only open space and a parking lot are in the inundation path. There are no residential developments and main thoroughfares in the Rolling Hills Estates that area within the potential inundation area of the reservoir. San Pedro would be most impacted by failure of the reservoir. In the event of dam failure, the facility's emergency plans include cooperation with the Department of Water and Power for emergency dewatering of the reservoir. The Department of Water and Power controls the main inlet and outlet pipeline feeders from the reservoir.

Storm Flooding

There are no widespread 100 year flood problems in the City of Rolling Hills Estates. Flash flooding does not pose a direct threat to public safety in canyons as development is not permitted in these areas. The City of Rolling Hills Estates has been registered in the National Flood Insurance Program (NFIP) since 1979. The Federal Emergency Management Agency, the administering agency for the insurance program, indicates that there are no widespread flood problems in the City, therefore 100-year flood maps are not available nor required. Participation in the program ensures coverage from any "flash flood", "mudflow", or "earth movement", so long as it can be directly tied to heavy rainfall caused by seasonal conditions.

City of
Rolling Hills Estates



GENERAL PLAN



LEGEND

- CITY BOUNDARY
- Existing LACDPW channels and storm drains
- Existing systems maintained by others
- Drainage needed
- Natural Flash Flood channel
- Flooded area following catastrophic breach of Palos Verdes Reservoir
- Palos Verdes Reservoir

Sources:

Los Angeles County Department of Public Works (LACDPW), 1985, Plan for Flood Control and Water Conservation, Index Maps 3 and 4, 1:24,000.

Metropolitan Water District, undated, Inundation map of Palos Verdes Reservoir 1:1000.

Notes:

1. Boundaries of inundated areas are approximate.
2. Location of storm drains and natural drainages are schematic.

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FLOOD AND INUNDATION HAZARDS

Exhibit 8-6

In compliance with the National Flood Insurance Program, Rolling Hills Estates administers a flood management ordinance (Ordinance 299) whereby conditions are defined in order to develop in areas subject to flood hazard. In practice, however, canyon areas are the only natural flood hazard and they are generally designated as open space. Storm-induced flood problems in the City, as defined by the NFIP, would include flash floods in the canyon areas, saturated mudflows on the hillsides, and shallow flooding in streets and residences associated with poor storm drainage. Due to the small size of the canyon watersheds in the City, most flash floods in the canyons are short-lived. Exhibit 8-6 shows the location of the major flood prone canyons in the City.

Localized Flooding. The previous chapter noted the importance of adequate drainage on developed hillside lots. Channeling storm runoff away from the slopes and into storm drains prevent erosion and minimizes the chance of shallow mudflows on graded slopes. If improperly maintained, private storm drain systems can overflow and channel sheet flow or mud into a residence. Residential drainage infrastructure often ties into larger storm drain systems where they empty into natural drainage such as canyon areas. Paved concrete channels or flood velocity reduction structures are sometimes necessary in natural drainage to prevent erosion caused by the channeled runoff. Erosion is not only unsightly, but can undermine adjacent slopes and make them unstable.

County Storm Drain System. The Los Angeles County Department of Public Works maintains the largest system of storm drains in the City of Rolling Hills Estates . Storm drains are designed to convey ten year frequency storm flows, floods that are expected to be equaled or exceeded once every ten years. System performance is reviewed on a similar time scale. Storm drainage requirements are designed to prevent floods from rising above the curbline and beyond the right-of-way.

Exhibit 8-6 shows areas where the County Public Works has identified future storm drain needs in order to prevent: 1) flooding from rising outside the right-of-way and into private property or 2) environmental impacts caused by the over capacity of existing natural drainage. Curbline inundation is not a direct threat to public safety, however, if access to a fire hydrant is hindered by street inundation, fire fighting capability can be indirectly affected. Street circulation is also hampered by street inundation.

Sheet flow along local or private roads in the City is directed to storm drains or catchment basins. Minor flooding along such routes is tolerated until a flood or safety issue is posed. If system performance is substandard, either as indicated by County studies or citizen complaint, the City can contract with the County to correct the problem.

New development or expansion of existing developments adjacent to the canyons increase runoff and erosion in the drainage. Environmental damage, and in some areas, slope instability may result. The impact on canyon drainage should be evaluated for the installation of adequate connectors to existing Los Angeles County storm drain systems.

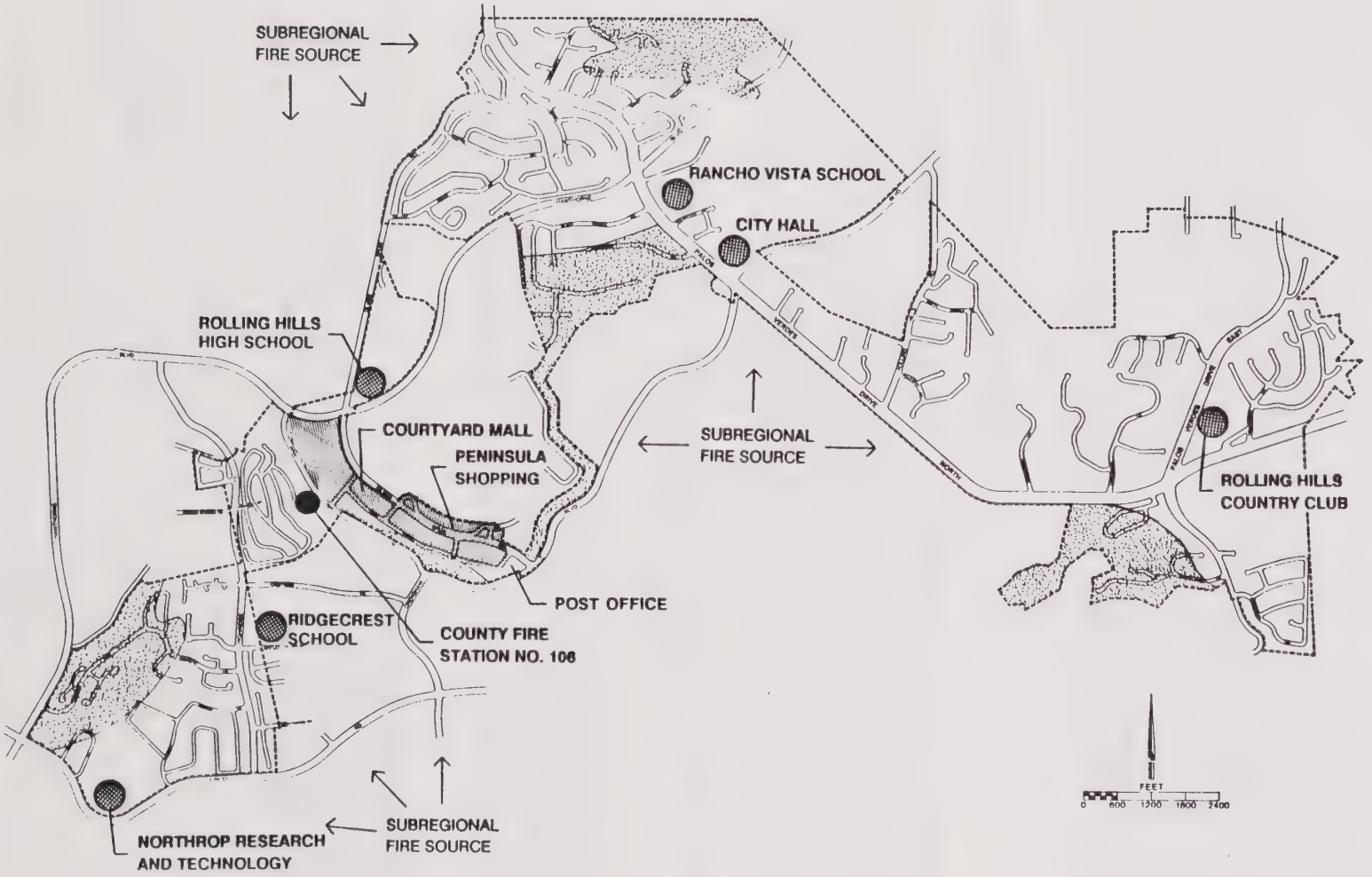
Proper drainage is necessary to ensure adequate access for emergency response, fire fighting, or evacuation activities. The City should encourage correction of sheet flow or concentrated channel flow problems along existing single access routes or in areas where fire hydrants are in a drainage deficient area. For new development, Los Angeles County Fire Code Standard No. 10.207(A) requires special drains in the vicinity of fire hydrants and states that private access roads must be designed to withstand (not undermine) a capital flood (flood capable of occurring on a roughly 250-year flood return interval).

FIRE HAZARDS

Rolling Hills Estates is predominantly made up of residential suburban development with less extensive areas devoted to low-rise commercial development (Peninsula Center), high density residential development (condominiums), and various isolated public and private facilities. Some developments lie adjacent to open space and canyon areas containing *chamise and coastal chaparral and coastal sage*, plant communities which are highly combustible due to volatile oils found within the plant tissues. The most extensive plant communities in the City, however, consist of less volatile grass and shrubs and planted landscaping. Given the physical and urban setting of the City, fires may start inside a building, or spread from adjacent brush and chaparral areas. Structural and brush fires are most often caused by accidental and deliberate human means.

Brush Fire

Certain areas of the City are more susceptible to brush fires than others. Exhibit 8-7 shows the relative fire risk based on the location and proximity of development to dense areas of volatile vegetation, relative access by road, and steepness of the terrain. Wind conditions is a direct variable and are assumed to be low. If fire occurs during Santa Ana winds, "branding" of wind- transported embers a mile or more from the source of fire can ignite combustible roofs and awnings. Multiple ignitions can tax normal fire fighting resources and increase response times to individual fires. A reconnaissance survey of roofs in the City indicates that wood-shake shingle construction is prevalent. Combined with the potential for branding during Santa Ana winds, many areas of the City would be vulnerable to fire under extraordinary circumstances. Branding also makes the City vulnerable to fires from outside the City.



City of Rolling Hills Estates

GENERAL PLAN

LEGEND

MODERATE TO HIGH FIRE RISK [1]

FACILITIES OR DEVELOPMENT WITH SPECIAL FIRE CONCERNS

[1] BRUSH HAZARD FACTORS, VEGETATION TYPE, PROXIMITY TO SOURCE, ACCESS AND SLOPE CAN VARY IN RELATIVE IMPORTANCE WITHIN EACH FIRE PLANNING AREA.

Sources:
Aerial Photography, 1989, Color-Infrared, City of Rolling Hills Estates, 1" = 800 FT.

Los Angeles County Forester and Fire Warden.

DAVID EVANS AND ASSOCIATES, INC.

FIRE HAZARD MANAGEMENT

Exhibit 8-7

Earthquake-Induced Fire

The principal causes of earthquake-related fires include open flames, electrical malfunctions, gas leaks, and chemical spills. Commonly affected are unanchored gas heaters or gas-fired hot water heaters, appliances which tend to tip over and damage rigid gas line connections during strong ground shaking. Damaged gas line connections, overturned appliances, and damaged electrical circuitry could be the most likely cause of earthquake-induced fires in the City.

The risk of fire from a damaged gas supply system can be considered low in Rolling Hills Estates. The only segments of the system at risk are those in areas of potentially severe ground failure and surface rupture, areas largely confined to the northeastern portion of the City. The Southern California Gas Company is equipped to isolate and shut off sections of severely damaged supply lines. Downed power lines from an earthquake and strong winds can start brush fires. To prevent such an occurrence, power lines are designed to automatically de-energize if there is a break in the system and vegetation is cleared under transmission routes.

Fire Protection and Life Saving Services

The City of Rolling Hills Estates is located in Division I of the Consolidated County Fire Protection District. County Fire Station 106 (413 Indian Hill Road) provides fire suppression services for the City, and under normal circumstances, is able to respond to an emergency or fire anywhere in the City in an average response of less than 5 minutes. Five other stations in the area are also able to provide prompt additional resources if needed. The closest fire suppression and emergency resources available to the City include:

> Station No. 106: This facility contains one engine company, one truck company, one paramedic unit, and a Battalion Chief.
>
> Subregional Stations: Subregional stations that can serve the planning area include stations in Lomita (one station), Palos Verdes Estates (one station), Rancho Palos Verdes (two stations) and Rolling Hills (one station). Any additional resources from the County Fire Department are available if required.

In order to maintain an adequate level of fire protection for buildings located within areas under contract for Los Angeles County Fire Department services, minimum safety standards for fire flow and water supply, road width and access, and turning radius for fire apparatus are required. Because the City is supported by a local fire company with adequate response

time and has a water distribution network with fire hydrants and access for fire vehicles, the City is designated a County Fire Zone 3. Fire Zone 3 is a fire code designation given to unincorporated areas with similar attributes. This protection merits the Insurance Service Office (ISO) fire risk classification (3), indicating an acceptable level of fire protection.

Fire flow is the delivery rate of water necessary to halt and reverse the spread of fire. The County Fire Protection Engineering Unit determines specific peak water flow requirements based on building height, occupancy, construction, contents, and other factors. Table 8-3 shows a range of fire flows mandated by the County for selected types of development found in Rolling Hills Estates (Fire Zone 3). Fire Prevention Regulation No. 8 provides details regarding hydrant spacing, duration of applied fire flow, and special regulation involving additional stories, mid-rise (3-stories), high-rise (5-stories), high hazard occupancies and many other variations of fire flow requirements.

Potential losses in water pressure due to breaks in the water distribution system can be caused by corrosion of cast-iron pipelines, excavation, and earthquake related ground failure. Pipelines must be protected in areas of potential liquefaction and landslides. Required fire flow tests are conducted by the County Fire Department and the local water company to ensure adequate fire flow.

TABLE 8-3
SELECTED MINIMUM FIRE FLOW AND ACCESS STANDARDS

Occupancies	Fire Flow[1] (gpm)	Road Width[2,3]	Access[4] (Feet)	Turning Radius (Feet)
Single-Family (Fire Zone 4)	1000-1250	20-26	150	32
Single-Family (Fire Zone 3)	750-1250	20-26	150	32
Two-Family (Duplex)	1500	26-36	150	32
Mobile Home (Fire Zone 4)	1250	26-36	150	32
Multi-Family (Apartment, Condominium and Hotel)	1000-5000	26-36	150	32

TABLE 8-3
SELECTED MINIMUM FIRE FLOW AND ACCESS STANDARDS

Occupancies	Fire Flow[1] (gpm)	Road Width[2,3]	Access[4] (Feet)	Turning Radius (Feet)
Schools	1000-5000	26-36	150	32
Commercial and Industrial	1000-5000	26-42	150	32
High-Rise (5-stories or 75 feet)	5000	N/A	N/A	32

1) Fire flow increases with building size (square feet) and/or lot acreage. 20 psi and 600 ft. hydrant spacing is required for single-family dwellings. 20 psi and 300 ft. hydrant spacing is required for all other occupancies.
2) Road width increases where parallel parking allowances, hydrant requirements, or aerial fire suppression requirements, or aerial fire suppression requirements indicate the need.
3) Minimum 20 feet private road width is permitted only if life safety is not jeopardized, topography or lot shape/dimensions are constraints, and the Fire Department grants discretionary approval.
4) A paved access is required if any portion of the first floor building exterior is more than 150 ft. from a public vehicle access (private driveway, bridge, alley).

Sources: Los Angeles County Fire Department Fire Code Standards 10.207 (A) and (B) and Fire Prevention Regulation No. 8, Vol. 7, Chap. 1, Subject 8 - Fire Flow and Hydrant Standards.

Minimum road width, access, and turning radius standards are established to provide adequate access to structures during fire suppression operations. Such standards are geared for private access roads including driveways, bridges, and alleys and restricted access roads designed solely for fire department apparatus. The majority of streets and arteries in Rolling Hills Estates are constructed to County Road Department standards and provide acceptable vehicular access. Private roads, however, are commonly used for public access and fire emergency access and must be reviewed for minimum access requirements.

Table 8-3 shows a range of road widths for certain types of development. A twenty-six foot road width is required at fire hydrant locations for a linear distance of 25 feet along the street on both sides of the hydrant. Turning radii on cul-de-sacs or street curves are required for all streets in the City. Because insufficient turning radii can restrict emergency access, minimum turning radii standards for emergency access roads are 32 feet. Forty feet inside and 50 feet outside radii are common in most developments.

Brush management of vegetation adjacent to buildings is an important element in fire prevention. Minimum requirements include managing combustible growth within 100 feet of structures, including clearance of hazardous flammable vegetation 30 feet around the building perimeter. Additional standards and regulations are found in Chapter 27 of the Los Angeles County Fire Code. Fire hazard reduction guidelines can also be found in "Hillside Design Guidelines", a County Regional Planning Manual.

Current Standards and Regulations

The Los Angeles County Fire Department conducts annual fire prevention and brush inspections in the City. Continued emphasis on public awareness and education concerning brush and earthquake-induced fire during such inspections is warranted. Advocation of smoke alarms and other fire protection and/or risk reduction devices is also appropriate.

Rolling Hills Estates currently enforces a *Class B Roofing Ordinance* for new development. As defined in the *1988 Uniform Building Code*, Class B roofs are pressure treated, wood-shake shingles. Class A roofs are chemically-treated, ceramic and steel-covered wood tiles. There are a substantial number of single-family residences in Rolling Hills Estates with wood shingle/non-rated roofing materials which could benefit from the conversion to Class B roofing material.

The *National Fire Protection Association (NFPA)* publishes standards for secondary water supply systems which may be required in areas where: a) pipeline damage can reduce available fire flow, b) municipal water sources are not available to isolated structures, and c) where the fire jurisdiction deems it's necessary to ensure fire suppression capability. Additional fire protection is also warranted by the County Fire Code if there is restricted access. Provisions include: on site secondary supply of water for emergency fire flow, including emergency pumping apparatus for swimming pools, etc. (NFPA Standard 1231); fire resistant construction; interior automatic fire sprinkler system; and additional brush clearance. Public assembly facilities, high occupancy facilities, and facilities housing immobile populations (schools, nursing care, convalescent home) in the City require special emergency needs in addition to fire suppression. High occupancy facilities (50 persons or more), or other occupancies noted of special concern by the County Fire Department, include Rolling Hills High School, Rancho Vista School, Rolling Hills Country Club, City Hall, Courtyard Mall, Peninsula Shopping Center, and Northrop Research and Technology (Exhibit 8-7). Fire drills and public education programs are needed to facilitate rescue operations and fire containment.

NFPA (1231) lists a variety of "High Hazard" occupancies with contents that create intense fires; examples are department stores, barns and stables, exhibition halls and auditoriums. Los Angeles County now requires sprinkler systems for most high occupancy and high

hazard structures. Retroactive sprinkler installation for critical facilities not covered by current regulations is a significant opportunity to increase public safety.

Supplementary gravity-fed municipal water tanks and distribution systems and fire flow testing are necessary elements of an emergency fire flow program. Mutual aid agreements involving fuel management, suppression assistance, logistical support, and an efficient fire reporting system are provided through the Consolidated County Fire Protection District.

Erosion can result from improper brush management. "Fire Hazard vs. Erosion Control: A Homeowner Guide" stresses substitution of existing vegetation with fire retardant plants and presents guidelines for managing fuel loading without increasing erosion potential.

HAZARDOUS MATERIALS

A hazardous material is a substance that is toxic, ignitable or flammable, or reactive and/or corrosive. An extremely hazardous material is defined as a substance that shows high acute or chronic toxicity, carcinogenicity, bioaccumulative properties, persistence in the environment, or is water reactive. The primary concern associated with the release of a hazardous material is the short and long term effects that exposure to a hazardous substance may have on the public. This is particularly true when a toxic gas is involved, since a toxic plume is more difficult to contain than a solid or liquid spill, and a gas can impact a larger segment of the population in a shorter time span.

All businesses that handle more than a specified amount of hazardous materials are required by both the Federal and State governments to submit a business plan to their local administering agency (the reportable quantities are 50 or more gallons of a liquid, 500 pounds or more or a solid, or 200 cubic feet or more of a gas at standard temperature and pressure; quantities for acutely hazardous materials vary according to the substance). In Rolling Hills Estates, the administering agency is the Los Angeles County Fire Department, Hazardous Materials Section. Every handler is required to submit a business plan to the Fire Department every two years, and an inventory of hazardous substances on a yearly basis. Registration forms for acutely hazardous materials are to be submitted on a yearly basis too (Greg Vital, 1991 personal communication).

The Los Angeles County Fire Department inspects the businesses that have submitted business plans at least once every two years to validate the accuracy of their plans. It is the responsibility of the handlers to submit any changes (such as types or quantities of hazardous materials used, ownership, etc.) to the Fire Department. On July 1, 1991, the Hazardous Materials Control Program staff and resources of the County Department of Health Services was transferred to the Los Angeles County Fire Department.

One of the best ways to reduce the impact of a hazardous material release is through regulation governing the storage, use and manufacture of hazardous materials. Several regulations have been implemented to address the issue of hazardous substances; individual cities have the right to develop more stringent requirements than those established by the State.

Most chemicals have their own unique physical and chemical characteristics and an acceptable mitigation procedure for one chemical may be totally inadequate for another. Therefore, business plans should contain, for each hazardous and extremely hazardous material handled, a description of the physical and chemical properties of the material, and of the symptoms that result from contact with the material. The plan should also have a site map that shows where each hazardous material is stored and handled and where emergency response equipment is located, and evacuation plans and procedures. Business plans are designed to be used by the Fire Department during a hazardous materials incident to allow for quick and accurate evaluation of each situation for appropriate response. Employees of facilities that use, store or manufacture hazardous materials should be aware of where a copy of the business plan is kept, and of how the plan is put into operation if a hazardous material accident occurs.

Although significant concentrations of hazardous materials, at levels for which a business plan is required, are generally associated with manufacturing and industrial areas, hazardous materials are also used and stored in commercial and residential areas. Most of Rolling Hills Estates is currently zoned for residential use. One main commercial area exists in the City, along Silver Spur Road between Hawthorne and Crenshaw Boulevards. This area includes retail clothing and specialty stores, grocery stores, banks, restaurants, gasoline stations and other service businesses. Fifteen handlers of hazardous materials have been identified in Rolling Hills Estates, ten of which are located in the City's general commercial zone. The fifteen handlers identified in Rolling Hills Estates are listed in Table 8-4. Because there are no heavy manufacturing facilities in Rolling Hills Estates, the potential of a hazardous material accident occurring within the City is unlikely.

A review of the Federal *CERCLIS* list, Federal and State Superfund sites, the State ASPIS and Cortese lists, and the *Regional Water Quality Control Board* list of Leaking Underground Fuel Tanks revealed that three leaking underground fuel tank sites and one State Superfund site (the Palos Verdes Landfill) have been reported in the City (see Table 8-4).

TABLE 8-4
REPORT HANDLERS OF HAZARDOUS AND ACUTELY HAZARDOUS MATERIALS IN ROLLING HILLS ESTATES

No.	Facility	Address	Status
1	Rolling Hills Country Day School	26444 Crenshaw Boulevard	
2	Northrop Research and Technology	6101 Crest Road	
3	Ice Capades Chalet	550 Deep Valley Drive	
4	Palos Verdes International Auto Center	627 Deep Valley Drive	
5	Courtyard Mall	550 Deep Valley Drive	
6	Arco Station No. 3005	27301 Hawthorne Boulevard	preliminary site assessment underway
7	Los Angeles County Fire Station No. 106	413 Indian Peak Road	
8	Shell Peninsula	27505 Indian Peak Road	
9	Jack Kramer Tennis Club	11 Montecillo Drive	
10	Chandler's Sand and Gravel	26311 Narbonne	
11	Metropolitan Water District	2300 Palos Verdes Dr. North	
12	One Hour Moto Photo	893 Silver Spur Road	preliminary site assessment underway
13	Charles B. Webster III	449 Silver Spur Road	preliminary site assessment
14	Arco Station No. 6087	828 Silver Spur Road	work plan requested
15	Glendale Federal Property	601 Silver Spur Road	

List of handlers compiled from the list of businesses supplying business plans to the Los Angeles County Fire Department (1-13), and from the Regional Water Quality Control Board List of Underground Leaking Tanks (14-15). Information regarding leaking underground tanks compiled from the April 1990 list, prepared by the Regional Water Quality Control Board.

Palos Verdes Landfill. The Palos Verdes Landfill, located between Hawthorne and Crenshaw at north City boundary, is considered a State Superfund Site under the State Expenditure Plan. The landfill is approximately 291 acres in area. Non-hazardous wastes were accepted at the landfill between 1952 and 1980. In addition, both Class I (solid) and Class II (liquid) unknown waste materials which could possible be considered as hazardous

were accepted during its operation. Hazardous wastes/materials disposed at the landfill included acid and alkaline wastes, pesticides, solvents, tetraethyl lead, sludge, hazardous tank bottoms, oily wastes and drilling mud. These wastes were disposed into injection wells, disposal pits and drums.

In the mid-1980's, groundwater contamination was detected beneath the landfill (the groundwater under the landfill is not used as a drinking water source). In 1986, the Los Angeles County Sanitation District constructed a subsurface barrier at the northern boundary of the main landfill to contain the northward migration of contaminated groundwater. Some of the sands underlying the landfill have the potential of promoting hydraulic conductivity with aquifers underlying the Los Angeles Basin (east of the Palos Verdes Peninsula). The County Sanitation District began a remediation plan by which water pumped from under the landfill is air stripped to remove some of the contaminants that occur in a gaseous phase. These off-gases are burned, together with other gases generated by the landfill, in a gas-to-energy facility on the northwestern section of the landfill.

Additional remediation actions are expected to be implemented as a result of a site characterization and feasibility study scheduled for completion in 1996. In the meantime, the Los Angeles County Sanitation District and the State Department of Health Services address all health and safety concerns as they are identified.

For future development on the landfill site, the lead agency responsible for overseeing remediation of the site (currently the Los Angeles County Sanitation District) will probably require a sign off on the cleanup prior to releasing the land for development.

Northrop Research and Technology Facility. The Northrop Facility located at 6101 Crest Road is one of the five handlers of hazardous materials not located within the commercial zone of the City. Although there is always the potential for an unauthorized release of hazardous substances, the impact of such a release on the rest of the City may be limited. The largest concern with the research facility is the future redevelopment of the site. Improper demolition of asbestos-containing buildings may result in the release of asbestos into the air. Any building constructed before 1979 may have asbestos-containing materials in its floor tiles, roofing, walls, insulation and other construction materials. Some buildings built in the 1980's may still test positive for asbestos. Asbestos, a fibrous mineral that has been linked to lung cancer, is generally released into the air when an otherwise safe, asbestos-containing material is crushed or broken.

Hazardous Materials Incidence Response

The County of Los Angeles Fire Department is responsible for responding to a hazardous material release incident in the City of Rolling Hills Estates. The Fire Department has

three hazardous materials squads; the one closest to Rolling Hills Estates is located in the unincorporated area near the City of Carson. The Fire Department's Health Hazard Response Team (previously from the County Health Department) will also respond to ensure the appropriate clean-up, investigation, and removal. The County follows the procedures set in the Multi-Hazard Functional Plan for emergency operations revised in 1987. No incident of a hazardous material release requiring a response by a hazardous materials squad has occurred in the City in the last two years (Jay Corbett, 1991 personal communication).

Releases of hazardous materials can occur during a natural disaster, such as an earthquake. Improperly stored containers of hazardous substances may overturn or break, pipelines may rupture, storage tanks may fail. Containers may explode if subject to high temperatures, such as those generated by a fire. If two or more chemicals which are reactive when combined come in contact as a result of a spill, the hazard may be compounded. The 1988 Uniform Fire Code includes a set of criteria, designed to minimize the risk of an accident, to be followed when storing, using or transporting hazardous materials. These requirements include secondary containment of substances, segregation of chemicals to reduce reactivity during a release, sprinkler and alarm systems, monitoring programs, venting and auto shutoff equipment, and treatment requirements for toxic gas releases.

In Rolling Hills Estates, most businesses that handle hazardous and/or acutely hazardous substances in quantities above the reportable limits are located in the commercial area along Silver Spur Road, Deep Valley Drive and Indian Peak Road (see Table 8-4). These businesses are located two, and often, less than one mile from Los Angeles County Fire Department Station No. 106 at 413 Indian Peak Road. The short distance between these facilities and the Fire Department means that firemen will, in general, be able to respond to an incident in less than their 2.5 to 3 minute average emergency response time.

Several large refineries, manufacturing facilities and military stations are located within ten miles from the City. These facilities carry the potential of causing a hazardous materials release incident that may impact the City. They include the U.S. Naval Reservation east of the City, the Torrance Municipal Airport and the U.S. military reservation to the north, the refineries in Wilmington and Torrance to the northeast, and the San Pedro Hill Air Force Station to the east. Military facilities generally store and handle fuel and other hazardous substances that, if spilled or released, have the potential of releasing toxic clouds that could impact neighboring areas. The California Highway Patrol is in charge of spills that occur in freeways, with local sheriffs and police departments responsible for additional enforcement and routing assistance.

Hazardous materials stored in oil refineries have the potential for toxic fumes if accidentally released during an earthquake or fire (Toppozada et al., 1988). The Union Oil Refinery in Wilmington is approximately one mile east of Rolling Hills Estates. Other refineries

within five miles of the City include the Mobil Oil Corporation refinery in Torrance, and the Shell Oil Co., Atlantic Richfield and Texaco, Inc. refineries in Wilmington. Whether a toxic fume released by any of these facilities would impact Rolling Hills Estates is in part dependent on wind direction and other climatological factors.

Evacuation and Disaster Routes. Evacuation involves relocation of occupants from buildings to ensure public safety to guidance of residents of an entire neighborhood away from hazardous areas. Disaster routes function as primary thoroughfares for movement of emergency response traffic, such as fire control. Disaster routing and evacuation are similar, in that road blockage or traffic jams can reduce response times. They are different in that evacuation activities are controlled by particular situations, and often require improvisation.

Storms, fire, and earthquakes can restrict access to residential neighborhoods with only single routes of entry. Road blockage could be in the form of slope failure, road wash out or local inundation. Evacuation is complicated during hazardous materials incidences because of the undetectable nature of some toxic chemicals, and because the movement of gas plumes cannot be readily predicted. Industrial centers to the north and east pose the greatest risk during Santa Ana wind conditions, when inland winds are directed toward the City.

City of
Rolling Hills Estates



GENERAL PLAN

Glossary of Terms

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MAY 23 1997

UNIVERSITY OF CALIFORNIA

CITY COUNCIL

CITY OF ROLLING HILLS ESTATES

LOS ANGELES COUNTY, CALIFORNIA

ORDINANCE NO. 594

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ROLLING HILLS ESTATES, CALIFORNIA, AMENDING CHAPTER 8.32 OF THE ROLLING HILLS ESTATES MUNICIPAL CODE (NOISE ORDINANCE).

WHEREAS, the City Council recognizes that this Zone Amendment is implemented pursuant to the requirements of the Noise Element of the General Plan; and

WHEREAS, adoption of this ordinance is intended to protect the residents of the City from excessive noise that is determined to be disruptive to the community; and

WHEREAS, upon giving the required notice the Planning Commission conducted a Public Hearing on the 18th day of February, and the 3rd day of March, 1997. All interested parties were given full opportunity to be heard and to present evidence; and

WHEREAS, the Planning Commission duly adopted Resolution No. ZC-100-97, recommending that the City Council amend Chapter 8.32 of the Rolling Hills Estates Municipal Code; and

WHEREAS, upon giving the required notice the City Council conducted a Public Hearing on the 22nd day of April, and the 13th day of May, 1997. All interested parties were given full opportunity to be heard and to present evidence; and

WHEREAS, the Environmental Impact Report (EIR) adopted for the approval of the General Plan found that the revisions to the Noise Ordinance as specified in the goals, policies, and implementation measures under the Noise Element would not have a significant effect on the environment; and

WHEREAS, as the result of studies and investigations made by this City Council and in and on its behalf, the following findings have been determined:

That the granting of the approval will not be materially detrimental to the public welfare or injurious to property and improvements in the Zoning District and neighborhoods in which properties are located because the General Plan requires the Noise Ordinance to be revised to ensure that adequate measures are implemented to protect the public health, peace, and welfare from noise disturbances.

That the granting of the approval will not be contrary to the objectives of the General Plan because the proposed zone change is in keeping with the goals, policies, and implementation measures set forth in the Noise Element.

That the granting of the approval will not authorize a use or activity stipulated in the Zoning District which is not otherwise expressly authorized by the zone regulations governing the parcel of property because the revisions stated herein to the Noise Ordinance do not seek to authorize a use or activity that is not already otherwise authorized throughout the zoning districts of the City.

NOW, THEREFORE, the City Council of the City of Rolling Hills Estates does hereby ordain as follows:

SECTION 1. Chapter 8.32 (Noise) of the Rolling Hills Estates Municipal Code is amended to read in full as follows:

*Chapter 8.32

NOISE

Sections:

8.32.010	*Policy.*
8.32.020	*Definitions.*
8.32.030	*Exemptions.*
8.32.040	*Noise zones.*
8.32.050	*Noise standards —Exterior.*
8.32.060	*Noise standards—Interior.*
8.32.070	*Noise standards—Reduction for pure tone or impulsive noise.*
8.32.080	*Measurement.*
8.32.085	*Noise Standards—Criteria for assessing a noise disturbance.*
8.32.090	*Prohibitions—Noise exceeding standards.*
8.32.100	*Prohibitions—Refuse collection vehicles.*
8.32.110	*Prohibitions—Motorized vehicles operating off public right-of-way.*
8.32.120	*Prohibitions—Vehicles, motorboat or aircraft repair and testing.*
8.32.130	*Prohibitions—Standing motor vehicles.*
8.32.140	*Prohibitions—Stationary non-emergency signaling devices.*
8.32.150	*Prohibitions—Emergency signaling devices—Exception.*
8.32.160	*Prohibitions—Amplified sound.*
8.32.170	*Prohibitions—Animals and fowl.*
8.32.180	*Prohibitions—Domestic power tools and machinery.*
8.32.190	*Prohibitions—Drums.*
8.32.200	*Prohibitions—Machinery, equipment, fans, ~~and~~ air-conditioning, and swimming pool equipment.*
8.32.210	*~~Prohibitions~~ Permitted—Construction ~~or repair work on buildings or structures~~ hours and days.*
8.32.215	*Permitted—Leaf blower operation hours and days.*
8.32.220	*Sound amplifying equipment—Use registration.*
8.32.230	*Variances.*
8.32.240	*Enforcement.*

8.32.010 Policy.

A. In order to control unnecessary, excessive and annoying noise in the city, it is declared to be the policy of the city to prohibit such noise generated from or by all sources as specified in this chapter. The ordinance codified in this chapter is adopted pursuant to the goals and implementation tactics set forth in the noise element of the city's general plan adopted pursuant to Government Code Section 65302(g).

B. It shall be the policy of the city to maintain and preserve the quiet atmosphere of the city, and to implement programs aimed at retaining noise levels throughout the city at acceptable values established in the general plan and consistent with the objectives and goals set forth in the plan.

C. It is determined that certain noise levels are detrimental to the public health, welfare, and safety, and are contrary to public interest. Therefore, the city council does ordain and declare that creating, maintaining, causing or allowing to be created, caused or maintained, any noise in a manner prohibited by or not in conformity with the provisions of this chapter is a public nuisance and shall be punishable as such. (Prior code § 695.1).

8.32.020 Definitions.

All terminology used in this chapter not defined in this section shall be in conformance with applicable publications of the American National Standards Institute (ANSI) or its successor body. The following words, phrases and terms as used in this chapter shall have the meanings as indicated in this section:

"Agricultural property" means a parcel of real property which is designed as agricultural on the city's official zoning map or used for agricultural purposes in accordance with the city's zoning ordinance.

"Ambient noise" means the composite of all noise from sources near and far, excluding the alleged intrusive noise source. The ambient noise constitutes the normal or existing level or environmental noise at a given location.

"A-weighted sound level" means the sound level in decibels as measured on a sound level meter using the A-weighting network. The level so read is designated in Db(A) or DBA.

"Commercial property" means a parcel of real property which is designated for commercial purposes on the city's official zoning map or used for commercial purposes in accordance with the city's zoning ordinance.

"Construction" means any site preparation, assembly, erection, substantial repair, alteration, or similar action, for or of public or private rights-of-way, structures, utilities or similar property.

"Daytime" means the time period from seven a.m. to ten p.m.

"Decibel" means a unit for measuring the amplitude of a sound, equal to twenty times the logarithm to the base of ten of the ratio of the pressure of the sound measured to the reference pressure, which is twenty micropascals.

"Emergency machinery, vehicle or alarm" means any machinery, vehicle or alarm used, employed, performed or operated in an effort to protect, provide or restore safe conditions in the community or for the citizenry, or used by private or public utilities when restoring utility service.

"Emergency work" means work made necessary to protect, provide or restore safe conditions in the community or for the citizenry, or work required to protect persons or property from an imminent exposure to danger or work by private or public utilities when restoring utility service.

"Fixed noise source" means a stationary device which creates sounds while in a fixed or stationary position including, but not limited to, industrial and commercial machinery and equipment, pumps, fan compressors, generators, air conditioners and refrigeration equipment.

"Impulsive noise" means a sound of short duration usually of high intensity and lasting less than one second, with an abrupt onset and rapid decay.

"Industrial property" means a parcel of real property which is designated for industrial purposes on the city's official zoning map or used for industrial purposes in accordance with the city zoning ordinance.

"Intrusive noise" means that alleged offensive noise which intrudes over and above the existing ambient noise at the receptor property.

"Leaf blower" means any portable power equipment powered by gasoline and used in any landscape maintenance, construction, property repair, or property maintenance for the purpose of blowing, dispersing, or redistributing dust, dirt, leaves, grass clippings, cuttings, and trimmings from trees, shrubs, or other debris.

"Mobile noise source" means any noise source other than a fixed noise source.

"Noise disturbance" means an alleged intrusive noise which violates an applicable noise standard as set forth in this chapter or any noise, as judged by the Sheriff's department or a city official, that annoys or disturbs the peace or quiet of any person or neighborhood as listed herein shall constitute a noise disturbance.

"Nighttime" means the time period from ten p.m. to seven a.m.

"Noise level" means the A-weighted sound pressure level as measured using a slow dynamic characteristic for sound level meters.

"Person" means any individual, firm, association, partnership, joint venture or corporation.

"Pitch" means the frequency of a sound. "High pitch" refers to high frequencies and "low pitch" refers to low frequencies.

"Public right-of-way" means any street, parkway, trail, public way, sidewalk, bikepath, or alley or similar place which is owned or controlled by a governmental entity.

"Real property boundary" means an imaginary line along the ground surface, and its vertical extension, which separates the real property owned by one person from that owned by another person.

"Residential property" means a parcel of real property which is designated for residential purposes on the city's official zoning map or used for residential purposes in accordance with the city zoning ordinance.

"Sound amplifying equipment" means any machine or device for the amplification of the human voice, music, or any other sound regardless of location. Sound amplifying equipment as used in this chapter shall not include warning devices on any vehicles used for only traffic safety purposes.

"Sound level meter" means an instrument, including a microphone, an amplifier, an output meter and frequency weighing networks for the measurement of sound levels, which satisfies the requirements pertinent for type S2A meters in American National Standards Institute specifications for sound level meters, S1.4–1971, or the most recent revision thereof. (Prior code § 695.2).

8.32.030 Exemptions.

The following activities shall be exempted from the provisions of this chapter:

A. Emergency Exemption. The emission of sound for the purpose of alerting persons to the existence of an emergency or the emission of sound in the performance of emergency work;

B. Warning Devices. Warning devices necessary for the protection of public safety, as for example police and fire and ambulance sirens, including the testing of such devices;

C. Outdoor activities. Activities conducted on public playgrounds and public or private school grounds including, but not limited to school athletic and school entertainment events. (Prior code § 695.11).

8.32.040 Noise zones.

Noise zones are as follows:

A. Noise zone I, Residential and Agricultural properties;

B. Noise zone II, Commercial properties;

~~*C. Noise zone III, Industrial—Research properties;*~~

C. ~~D.~~ Noise zone III ~~IV~~, Industrial—Quarry properties. (Prior code § 695.3).

8.32.050 Noise standards—Exterior.

A. The following exterior noise levels, unless otherwise specifically indicated, shall apply to all receptor properties within a designated noise zone and shall constitute the ambient noise level for the purpose of establishing standards:

Figure 8.32.050 - Exterior Noise Standards			
Noise Zone	Designated Noise Zone Lane Use	Time Interval	Exterior Noise Level (dBA)
I	Residential and Agricultural	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	55 45
II	Commercial Properties	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	65 55
~~III~~	~~Industrial—Research Properties~~	~~7:00 a.m. to 10:00 p.m.~~ ~~10:00 p.m. to 7:00 a.m.~~	~~55~~ ~~45~~
III ~~IV~~	Industrial—Quarry Properties	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	75 45

B. Unless otherwise herein provided, no person shall operate or cause to be operated, any source of sound at any location within the city, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level when measured on any other property to exceed the following standards:

1. "Standard No. 1" means the applicable ambient exterior noise level as set forth in subsection (A) of this section plus five dB for a cumulative period of more than twenty minutes in any hour.

2. "Standard No. 2" means the applicable ambient exterior noise level as set forth in subsection (A) of this section plus ten dB for a cumulative period of more than ten minutes in any hour.

3. "Standard No. 3" means the applicable ambient exterior noise level as set forth in subsection (A) of this section plus fifteen Db for a cumulative period of more than one minute in any hour. (Prior code § 695.4).

8.32.060 Noise standards—Interior.

A. The following interior noise levels for common-wall residential dwellings shall apply, unless otherwise specifically indicated, within all such dwellings with windows in their normal seasonal configuration and shall constitute the ambient for the purpose of establishing standards:

Figure 8.32.060 - Interior Noise Standards			
Noise Zone	Designated Noise Zone Land Use	Time Interval	Exterior Noise Level (DBA)
All	Common Wall and Freestanding Dwellings	10:00 p.m. to 7:00 a.m. 7:00 a.m. to 10:00 p.m.	40 45

B. No person shall operate or cause to be operated within a dwelling unit, any source of sound or allow the creation of any noise which causes the noise level when measured inside a neighboring receiving dwelling unit to exceed the following:

1. "Standard A" means the applicable ambient interior noise level as set forth in subsection (A) of this section plus five Db for a cumulative period of more than five minutes in any hour.

2. "Standard B" means the applicable ambient interior noise level as set forth in subsection (A) of this section plus ten Db for a cumulative period of more than one minute in any hour. (Prior code § 695.5).

8.32.070 Noise standards—Reduction for pure tone or impulsive noise.

For any source of sound which emits a pure tone or impulsive noise, the noise levels as set forth in Sections 8.32.050 and 8.32.060 shall be reduced by five decibels. (Prior code § 695.6).

8.32.080 Measurement.

A. The "A" weighting scale of the sound level meter and the slow meter response are utilized for continuous noise level measurement. Fast response is utilized for impulsive type sounds. The noise level shall be measured at a position or positions at any point on the receptor property. In general, the microphone shall be located four to five feet above the ground and ten feet or more from the nearest reflective surface, where possible. However, in those cases where another elevation is deemed appropriate, the latter shall be utilized.

B. Interior noise measurements shall be made within the affected residential unit. The measurements shall be made a point at least four feet from the wall, ceiling or floor nearest the noise source, with windows in the normal seasonal configuration. Calibration of the measurement equipment, utilizing an acoustic calibrator shall be performed immediately prior to recording any noise data. (Prior code § 695.7).

8.32.085 Noise Standards—Criteria for assessing a noise disturbance.

Notwithstanding any other provisions of this Chapter and in addition thereto, it shall be unlawful for any person to maliciously or willfully make or continue, or cause to be made or continued any loud, unnecessary or unusual noise which disturbs the peace or quiet of any person or neighborhood. The standard which may be considered in determining whether a violation of the provisions of this section exists may include, but not be limited to, the following:

A. The level of the noise;

B. The usual or unusual nature of the noise;

C. The natural or unnatural origin of the noise;

D. The level and intensity of the background noise, if any;

E. The proximity of the noise to residential sleeping facilities;

F. The nature and zoning of the area within which the noise emanates;

G. The density of the inhabitation of the area within which the noise emanates;

H. The time of the day and night the noise occurs;

I. The duration of the noise;

J. The recurrent, intermittent, or constant duration of the noise;

K. The commercial or noncommercial noise emissions;

L. The weekday, weekend, or holiday occurrence of the noise; and

M. The lack of appropriate noise mitigation measures being employed.

The city may issue a citation against the person, persons, or entity responsible for the noise including, but not limited to, the property owner or business operator on whose premises the noise originates."

8.32.090 Prohibitions—Noise exceeding standards.

No person shall operate or cause to be operated any source of sound at any location within the city or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property, to exceed the noise standard for that land use as set forth in Sections 8.32.050, 8.32.060, ~~and~~ 8.32.070, or cause a noise disturbance as determined by the criteria set forth in Section 8.32.085. (Prior code § 695.8).

8.32.100 Prohibitions—Refuse collection vehicles.

No person authorized to engage in waste disposal service or garbage collection shall operate any truck-mounted waste or garbage loading and/or compacting equipment or similar device in any manner so as to create any noise exceeding eighty DBA, measured at a distance of fifty feet (fifteen meters) from the equipment in an open area or as determined by the criteria set forth in Section 8.32.050. (Prior code § 695.9(a)).

8.32.110 Prohibitions—Motorized vehicles operating off public right-of-way.

No person shall operate or cause to be operated any motorized vehicle, which shall include motorized recreational vehicles, off a public right-of-way in such a manner that the sound ~~levels~~ emitted therefrom violate the provisions of Sections 8.32.050, 8.32.060, ~~and~~ 8.32.070, and 8.32.085. The term "motorized recreational vehicles" shall include, but not be limited to, commercial or noncommercial racing vehicles, motorcycles, go-carts, campers and dune buggies. (Prior code § 695.9(b)).

8.32.120 Prohibitions—Vehicles, motorboat or aircraft repair and testing.

A. Vehicles, Motorboat or Aircraft Repair and Testing. No person shall repair, rebuild, modify or test any motor vehicle, motorboat or aircraft in such a manner that the sound ~~levels~~ emitted therefrom violates the provisions of Sections 8.32.050, 8.32.060, ~~and~~ 8.32.070, or 8.32.085.

B. Nothing in this section shall be construed to prohibit, restrict, penalize, enjoin, or in any manner regulate the movement of aircraft which are in all respects conducted in accordance with, or pursuant to, applicable Federal laws or regulations. (Prior code § 695.9(c)).

8.32.130 Prohibitions—Standing motor vehicles.

Standing Motor Vehicles. No person shall operate or permit the operation of any motor vehicle with a gross vehicle weight rating (GVWR) in excess of six thousand pounds, or any auxiliary equipment attached to such a vehicle, for a period longer than five minutes in any hour while the vehicle is stationary, for reasons other than traffic congestion, on a public right-of-way or public space within two hundred feet (sixty-two meters) of a residential area between the hours of ten p.m. and seven a.m. (Prior code § 695.9(d)).

8.32.140 Prohibitions—Stationary non-emergency signaling devices.

Stationary Non-emergency Signaling Devices. No person shall sound or permit the sounding of any electronically amplified signal from any stationary bell, chime, siren, whistle, or similar device, intended primarily for non-emergency purposes, from any place, for more than ten seconds in any hourly period. Houses of religious worship shall be exempt from the operation of this provision. (Prior code § 695.10(a)).

8.32.150 Prohibitions—Emergency signaling devices—Exception.

A. No person shall intentionally sound or permit the sounding outdoors of any fire, burglar, or civil defense alarm, siren, whistle, or similar stationary emergency signaling device, except for emergency purposes or for testing, as provided in subsection B of this section.

B. Testing of stationary emergency signaling system, including the functioning of the signaling device, and the personnel response to the signaling device, shall not occur more than once in each calendar month. Such testing shall not occur before seven a.m. or after ten p.m. The testing time for any single device shall not exceed sixty seconds. The provisions of this section shall not be applicable to any public agency. (Prior code § 695.10(b)).

8.32.160 Prohibitions—Amplified sound.

It is unlawful for any person other than law enforcement personnel or other authorized governmental personnel, to install, use or operate within the city a loudspeaker or sound amplifying equipment in a fixed or movable position for the purposes of giving instructions, directions, talks, addresses, lectures or transmitting music to any persons or assemblages of persons in or upon any street, alley, sidewalk, park, place or public property without first obtaining a permit from the city manager in accordance with the provisions of Section 8.32.220. (Prior code § 695.12(a)).

8.32.170 Prohibitions—Animals and fowl.

No person shall keep or maintain, or permit the keeping of, upon any premises owned, occupied or controlled by such person, any animal or fowl permitted to be kept in Chapter 17.46 of this code or otherwise permitted by special use permit by Chapter 17.70 of this code which, by any sound, cry or behavior, shall create a noise disturbance across a residential or commercial real property line at any time to violate the provisions of Sections 8.32.050, 8.32.060, ~~and~~ 8.32.070, or 8.32.085. (Prior code § 695.12(b)).

8.32.180 Prohibitions—Domestic power tools and machinery.

It shall be unlawful to operate or permit the operation of any mechanically-powered saw, sander, drill, grinder, mower, lawn or garden tool, or similar tool between ten p.m. and seven a.m. so as to create a noise disturbance which violates the provisions of Sections 8.32.050, 8.32.060, ~~and~~ 8.32.070, or 8.32.085. (Prior code § 695.12(c)).

8.32.190 Prohibitions—Drums.

It shall be unlawful for any person to use any drums or other instrument or device of any kind for the purpose of attracting attention by the creation of noise within the city. This section shall not apply to any person who is a participant in a school band or in a parade for which a permit has been approved by the city manager to engage in such conduct. (Prior code § 695.12(d)).

8.32.200 Prohibitions—Machinery, equipment, fans, ~~and~~ air-conditioning, and swimming pool equipment.

A. It shall be unlawful for any person to operate any machinery, equipment, pump, fan, air-conditioning apparatus, or similar mechanical device so as to create any noise which violates the provisions of Sections 8.32.050, 8.32.060, ~~and~~ 8.32.070, or 8.32.085. (Prior code § 695.12(e)).

B. Any new pool mechanical equipment or replacement equipment (requiring replacement of more than 50% of the value of existing pool equipment) shall be enclosed in a block wall or similar solid wall structure high enough to dampen the noise from the pool equipment. The equipment enclosure must meet all applicable setbacks of the underlying zone for structures over 1' in height and shall not exceed 6' in height from finished grade. A roof cover over the equipment enclosure may be installed and the entire enclosure must be compatible with other surrounding structures. If a roof cover is installed over the equipment enclosure, the structure shall count towards the allowable accessory structure square footage limit of 500 square feet for residential zones.

8.32.210 ~~Prohibitions~~ Permitted—Construction ~~or repair work on buildings or structures~~ hours and days.

A. ~~It shall be unlawful for any~~ Any person ~~adjacent to or~~ within ~~any residential zone in~~ the city shall be permitted to operate power construction equipment or use tools for the

purpose of conducting ~~or perform any outside~~ construction or repair work on buildings, structures or projects only between the following hours and on the following days:

Monday through Friday	Saturday
7:00 am - 5:00 pm	9:00 am - 5:00 pm

Construction activities are not allowed at any time on Sundays and holidays. For the purpose of this Chapter, holidays shall consist of New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

B. No queuing of trucks or arrival of construction materials and/or workers to a construction site shall be permitted outside the permitted construction hours and days, as specified in Section 8.32.210(A). ~~or to operate any pile driver, steam shovel, pneumatic hammer, steam or electric hoist, or other construction device between the hours of seven p.m. of one day to seven a.m. of the next day or at any time on any Sunday, or at any time on any public holiday in such a manner as to~~ No construction activity shall violate the noise standards set forth in Sections 8.32.050, 8.32.060, ~~and~~ 8.32.070, or 8.32.085.

C. The performance of emergency work is exempt from the provisions of this section.

D. Minor home ~~Home~~ repairs and routine home and personal property maintenance activities such as automobiles or boats is not considered construction within the meaning of this Chapter; however, these type of activities shall be subject to the provisions set forth in Sections 8.32.050, 8.32.060, 8.32.070, or 8.32.085.

E. The planning commission or city council shall retain the right to impose more restrictive hours of construction upon any projects involving major construction activity by adding appropriate conditions to the city's approval of lot splits, subdivisions, precise plans of design and conditional use permits.

~~C. All minor construction activities such as, but not limited to, home additions, roof replacement and patio construction shall be subject to the provisions of this chapter.~~

~~D~~ F. A variance, issued in accordance with Section 8.32.230, shall be required for any type of construction which will violate the noise standards set forth in Sections 8.32.050, 8.32.060 or 8.32.070. (Prior code § 695.12(f)).

8.32.215 Permitted—Leaf blower operation hours and days.

Any person within the city shall be permitted to operate a gasoline powered leaf blower only between the following hours and on the following days:

Monday through Friday	Saturday
8:00 am - 5:00 pm	9:00 am - 5:00 pm

The use of gasoline powered leaf blowers are not allowed at any time on Sundays and holidays. For the purpose of this Chapter, holidays shall consist of New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

8.32.220 Sound amplifying equipment—Use registration.

A. Issuing Authority. The issuing authority shall be the city manager.

B. Approving Authority. The approving authority shall be the city manager.

C. Applications. Every user of sound amplifying equipment or drums, or other devices falling under the provisions of this chapter shall file a registration statement with the city manager at least five days prior to the date on which the sound amplifying equipment is intended to be used, which statement shall contain the following information:

1. The name, address and telephone number of both the owner and the user of the sound amplifying or other equipment;

2. The maximum sound producing power of the sound amplifying or other equipment which shall include the wattage to be used, the volume and decibels of sound which shall be produced, and the approximate distance for which sound will be audible or is capable of being audible from the sound amplifying equipment;

3. A general description of the sound amplifying or other equipment which is to be used;

4. Whether the sound amplifying or other equipment will be used for commercial or noncommercial purposes;

5. The dates upon which, and location where the equipment is proposed to be operated.

D. Processing of Application. The city manager shall approve the registration statement unless he finds that:

1. The use of the equipment would constitute an unreasonable interference to traffic safety;

2. The conditions of pedestrian movement are such that the use of the equipment would constitute a detriment to traffic safety;

3. The registration statement required reveals that the applicant would violate the provisions of this chapter.

E. Issuance or Denial. If the registration is approved by the city manager, the city manager, upon the payment of the fees set forth in subsection F of this section, shall return an approved copy of the registration statement to the applicant which shall constitute permission for the use of the sound amplifying equipment as requested. In the event the registration statement is disapproved, the city manager shall return it forthwith to the applicant with a statement of the reasons for disapproval endorsed thereupon.

F. Fees. Prior to the issuance of the registration statement, a fee in an amount as set by council resolution shall be paid to the city if the loudspeaker or sound amplifying equipment is to be used for commercial purposes. No fee shall be required for the operation of a loudspeaker or sound amplifying equipment if the applicant is an organization exempted under the provisions of this code from the payment of a business license. (Ord. 561 § 1 (part), 1993; prior code § 695.13).

8.32.230 Variances.

-The city manager is authorized to grant variances from any provision of this chapter, subject to terms and conditions such as, but no limited to, area, noise levels, and time limits as the city manager determines are appropriate to protect the public health, safety and welfare from the noise emanating therefrom. This section shall, in no way, affect the duty to obtain any permit required by law for such activities.

A. Application. Any person seeking a variance pursuant to this section shall file an application with the city manager. The application shall contain information which demonstrates that bringing the source of sound or activity for which the variance is sought into compliance with this chapter would constitute an unreasonable hardship on the applicant, on the community, or on other persons. The application shall be accomplished by a fee in an amount set by council resolution. A separate application shall be filed for each noise source; provided, however, several fixed sources on a single property may be combined into one application.

B. Notice. Notice of an application for a variance shall be posted in city hall for at least five days. Any individual who claims to be adversely affected by allowance of the variance may file a statement with the city manager containing any information to support his claim.

C. Issuance or Denial. In determining whether to grant or deny the application the city manager shall balance the hardship on the applicant, the community and other persons of not granting the variance against the adverse impact on the health, safety and welfare of persons affected, the adverse impact on property affected, and any other adverse impacts of granting the variance. Applicants for variances and persons contesting variances may be required to submit such information as the city manager may reasonably require. In granting or denying an application, the city manager shall keep on public file a copy of the decision and the reasons for denying or granting the variance.

D. Conditions. Variances shall be granted by notice to the applicant containing all necessary conditions, including a time limit on the permitted activity. The variance shall not become effective until all conditions are agreed to by the applicant. Noncompliance with any conditions of the variance shall terminate the variance and subject the person holding it to those provisions of this chapter for which the variance was granted.

E. Time Limitations. A variance will not exceed sixty days from the date on which it was granted. Application for extension of time limits specified in variances or for modification of other substantial conditions shall be treated like applications for initial variances under subsection A of this section.

F. Appeal. Any applicant or other person aggrieved by the decision of the city manager may appeal the decision to the city council in accordance with the provisions of Section 17.66.090. (Ord. 561 § 1 (part), 1993; prior code § 695.14).

8.32.240 Enforcement.

A. Any peace officer, designated member of the county of Los Angeles <u>Sheriff</u> department <u>or department</u> of health services, the city manager or his designee is authorized to enforce the provisions of this chapter.

B. Prima Facie Violation. Any noise exceeding the noise level limits for a designated noise zone as specified in Sections 8.32.050, 8.32.060 and 8.32.070 <u>or any noise disturbances as determined in Section 8.32.085</u> or the prohibited actions as specified in Sections 8.32.100 through 8.32.210, shall be deemed to be prima facie evidence of a violation of the provisions of this chapter.

C. In citing violations, the enforcement officer shall specify the standard which has been violated, as set forth in Sections 8.32.050, ~~and~~ 8.32.060, 8.32.070, <u>or 8.32.085</u> in the notice of violation.

D. Any person violating any of the provisions of this chapter shall be deemed guilty of a misdemeanor (infraction) and upon conviction thereof, shall be fined in an amount not to exceed five hundred dollars or be imprisoned in the city (county) jail for a period not to exceed six months or by both such fine and imprisonment. Each day such violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such.

E. Except where a person is acting in good faith to comply with an abatement order issued pursuant to subsection F of this section, violation of any provision of this chapter shall be cause for a notice of violation to be issued by the city manager or other responsible enforcement official according to procedures which the city manager may prescribe.

F. 1. In lieu of issuing a notice of violation, the city manager or other official responsible for enforcement of any provision of this chapter may issue an order requiring abatement of a sound source alleged to be in violation of this chapter, within a reasonable time period and in accordance with guidelines to be promulgated by the city manager.

2. No complaint or further action shall be taken in the event that the cause of the violation has been removed, the condition abated or fully corrected within the time period specified in the written notice.

G. As an additional remedy, the operation or maintenance of any device, instrument, vehicle or machinery in violation of any provision of this chapter ~~which operation or maintenance causes or creates sound levels exceeding the allowable limits as specified in this~~

~~chapter~~ *shall be deemed and is declared to be a public nuisance and may be subject to abatement summarily by a restraining order or injunction issued by a court of competent jurisdiction. Additionally, no provision of this chapter shall be construed to impair any common law or statutory cause of action, or legal remedy therefrom, of any person for injury or damage arising from any violation of this chapter or from other law. (Prior code § 695.15)."*

SECTION 2. The City Clerk shall certify to the passage of this Ordinance and cause the same to be published in the manner prescribed by law.

ADOPTED this 13th day of May, 1997

SUSAN SEAMANS, MAYOR

ATTEST:

DOUGLAS R. PRICHARD, CITY CLERK

I HEREBY CERTIFY that the above Ordinance No. 594 was regularly introduced and placed upon its first reading at a regular meeting of the City Council on the 22nd day of April, 1997, and was duly adopted and passed at a regular meeting of the City Council on the 13th day of May, 1997, by the following vote:

AYES: ADDLEMAN, BECK, RAUCH, SEAMANS

NOES: NONE

ABSENT: MC GUIRE

ABSTAIN: NONE

I FURTHER CERTIFY that said Ordinance was thereon signed by the Mayor of the City of Rolling Hills Estates.

DOUGLAS R. PRICHARD, CITY CLERK